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New locality of *Buthus apiatus* Lourenço, El Bouhissi & Sadine, 2020 in Algeria (Scorpiones: Buthidae)

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Abstract

This note concerns a scorpion species of the genus *Buthus* recently described in Algeria, *Buthus apiatus* Lourenço, El Bouhissi & Sadine, 2020. According to the last synthesis of Algerian scorpions, this species is located in the North-West of Algeria, in the department of Sidi Bel Abbes and the Tissemsilt. This note provides a new locality of *B. apiatus* outside these areas, extended about 230 km eastwards, south of the department of Tiaret (Algeria).

Keywords: Scorpion, Buthidae, *Buthus apiatus*, Tiaret, Western Algeria.

Introduction

Scorpions rank fifth among arachnids in terms of diversity (Shultz, 2002), with 2752 species, among 22 scorpion families; the family Buthidae C.L. Koch, 1837 is the largest with 1352 taxa divided into 99 genera, it has a worldwide distribution except for Antarctica and New Zealand (Rein, 2023). The genus *Buthus* Leach, 1815 is the fourth largest genus of the Buthidae (Dupré, 2022). It has a high rate of endimism (Sadine *et al*., 2020), and includes 78 valid species, of which about 80% have been described since the early 2000s (Rein, 2023). In Algeria, the number of *Buthus* has been multiplied by 5, it has increased from 2 species to 11 (Dupré *et al*., 2023), which are: *Buthus tunetanus* (Herbst, 1800), *Buthus paris* (C.L. Koch, 1839), *Buthus tassili* Lourenço, 2002, *Buthus*

pusillus Lourenço, 2013, *Buthus saharicus* Sadine, Bissati & Lourenço, 2016, *Buthus aures* Lourenço & Sadine, 2016, *Buthus oudjanii* Lourenço, 2017, *Buthus boussaadi* Lourenço, Chichi & Sadine, 2018, *Buthus apiatus* Lourenço, El Bouhissi & Sadine, 2020, *Buthus goyffoni* Abidi, Sadine & Lourenço, 2021, and *Buthus ahaggar* Ythier, Sadine, Haddadi & Lourenco, 2021 (Ouici *et al.*, 2020; Rein, 2023).

Fig. 1. Natural biotope of *Buthus apiatus* in its new locality.

Buthus apiatus is an endemic species of North-Western Algeria, it has been described in the region of Ras Elma, department of Sidi Bel Abbes (Lourenço *et al*., 2020). The Ouarsenis region represents the second locality where this species has been reported (Chedad *et al*., 2022). The present note provides a new data on the distribution of this species in Algeria, through the addition of a new locality in the department of Tiaret where this species has been observed.

Studied material and study area

One male (1♂) was found on 07/X/2022 under a stone in a semi-urban field on the outskirts of the town of Sougeur (35°09'43"N., 01°29'18"E.) medium altitude of 1185m. (Fig.1). This new locality is located in a semi-arid bioclimatic zone very similar to the type locality which gives an idea that this species is well adapted to the dry climate. The wide distance between this locality and the region of Ras Elma (about 230 km) and between the Ouarsenis Mountains (about 110 km) (Fig. 2) indicate that the distribution area of this species in Algeria is wider than known.

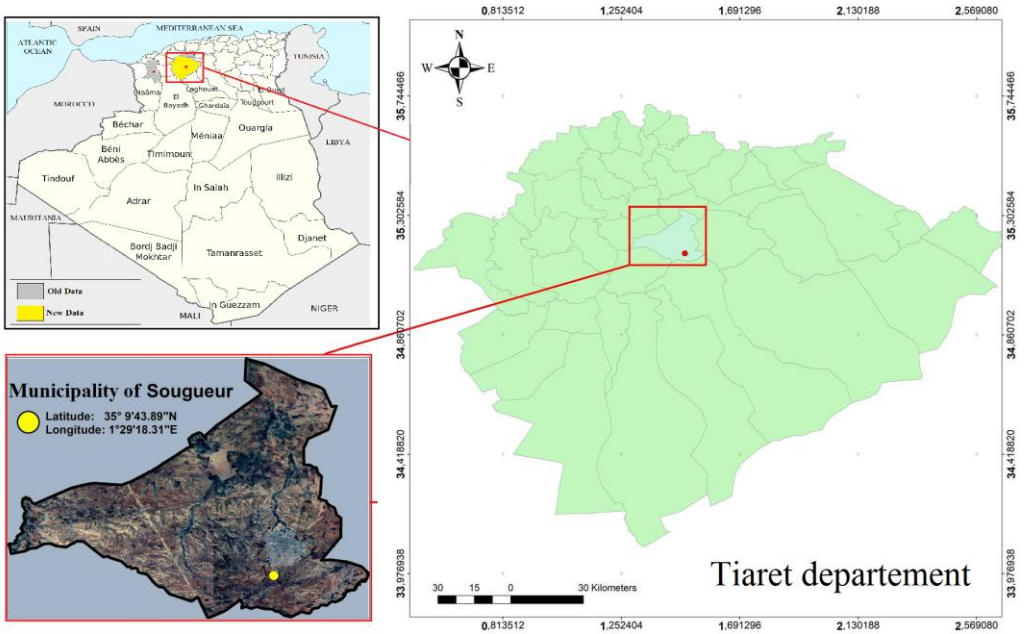

Fig. 2. Map showing the new locality of *Buthus apiatus*.

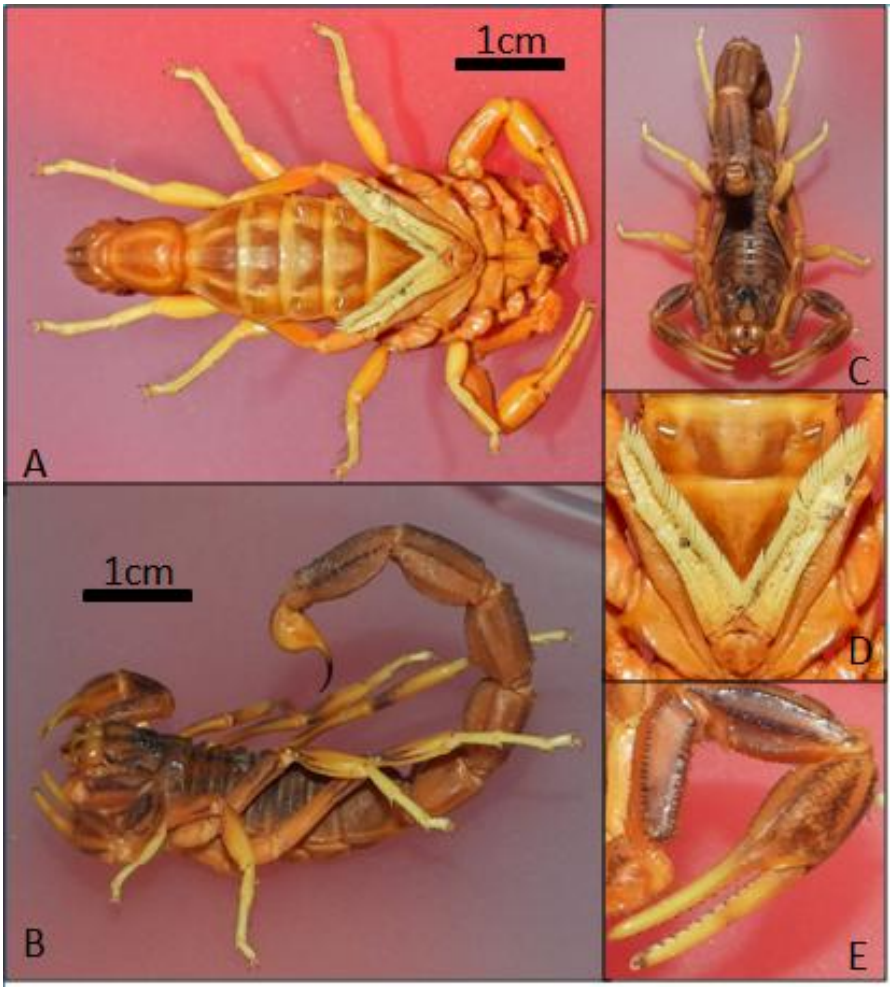

Fig. 3. *Buthus apiatus* (♂). A-C. Habitus. A. ventral view. B. lateral view. C. dorsal view. D. Pectinal teeth. E. pedipalp with conspicuous reticular to alveolar spots.

Description

Medium-sized scorpion, with a total length of 61.4 mm, yellow to yellowish-orange in colour tinged with a few brown spots of dark pigments. Chelicerae yellowish with reticular to alveolar spots covering the anterior 2/3 of the total surface of the digits; fingers yellow with almost blackish teeth. Yellow legs with clearly visible brown spots on the proximal segments (Lourenço *et al*., 2020). The pectinal teeth in the observed male count 31-32 (Fig. 3). Fixed and mobile fingers with 10 rows of denticles.

Acknowledgments

We would like to thank the gentleman who brought the studied sample Abdi Hadj ould bouziane, Cherier Hamid for producing the location map, Professor Doumandji, S.D. for the confirmation of the species identification, and the anonymous reviewers who helped us to improve our manuscript.

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On the morphology of the endemic Camel-spider *Karschia* (*Karschia*) *caucasica* (L. Koch, 1878) (Solifugae: Karschiidae)

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Abstract

This article presents morphometric data and a brief description of the endemic solifuge *Karschia* (*Karschia*) *caucasica* based on studying own collection material that consists of seven male specimens and one female obtained from the type habitat and the new localities in the southwestern part of the Absheron Peninsula (Azerbaijan). The female of this species was previously unknown to science and was discovered by the author for the first time. The reliability of the belonging of this female specimen to *K.* (*K.*) *caucasica* was confirmed by the fact of its joint discovery with the male of this species during the process of copulation.

Keywords: Solifugae, *Karschia*, morphometric characters, Azerbaijan.

Introduction

Solifuges of genus *Karschia* Walter, 1889 are distributed in North Africa (Algeria, Egypt, Libya, Morocco), southeastern Europe (Greece) and Central Asia (from Israel and Yemen to Mongolia and China) (Roewer, 1933; Birula, 1938; Harvey, 2003; World Solifugae Catalog, 2022). It is the largest genus in family Karschiidae, subdivided into two subgenera: *Karschia* (*Rhinokarschia*) Birula, 1935 represented by 8 species and *Karschia* (*Karschia*) Walter, 1889 represented by 18 species, two of which: *Karschia* (*Karschia*) *mastigofera* Birula, 1890 and *K.* (*K.*) *caucasica* (L. Koch, 1878) are found on the territory of Azerbaijan (Birula, 1938; Aliev & Gadzhiev, 1983; Aliev, 1984; Gadzhiev, 1996; Aliyev *et al.*, 2018).

The holotype of *K.* (*K.*) *caucasica* was first described by L. Koch (1878). It was a single male specimen from the type habitat in the vicinity of Baku, then, some additions to the description were made by K. Kraepelin (1901), C. Roewer (1933) and A. Byalynitsky-Birula (1938). The specimen mentioned in the description of L. Koch (1878) as female *K.* (*K.*) *caucasica* was taken not in the type habitat, but in the Lesser Caucasus and belongs to the species *K.* (*K.*) *mastigofera* Birula, 1890 widespread in that region (Birula, 1938). Subsequently, the species was redescribed by Sh. Aliev, with the correction of some inaccuracies by two male specimens obtained by the author from the type habitat in the vicinity of Baku (Aliev, 1984). In addition to the descriptions made by the above authors, there are no other data on morphology and new localities of the species in the available literature, with the exception of our previously presented data on 6 new localities established for this species (Novruzov, 2020).

This article presents a study of the external morphology of *K.* (*K.*) *caucasica* based on my own collection material, consisting of 7 males and a single female, obtained from the type habitat and new localities of the species. When studying males, some morphological features were noted that are absent in the literature. The female of this species is described for the first time.

Material and Methods

Seven males and one female specimens of the solifuge *K.* (*K.*) *caucasica* was collected in 6 localities of the southwestern part of the Absheron Peninsula (Eastern part of Azerbaijan). The collected material was examined using MBI-1 and Nikon SMZ 1270 binocular microscopes, using 16-80 x magnification. The specimens measurement were obtained by an ocular micrometer of microscope. The 14 measurements were made with an accuracy of 0.01 mm.

Abbreviations used: L. abd. = length of opisthosoma, L.c. = length of propeltidium, L.ch.1 = length of dorsal (fixed) finger of chelicera, L.ch.2 = length of ventral (movable) finger of chelicera, L.pl. = length of pedipalp, L.ps.1–L.ps.4 = limbs lengths, L.tot. = total body length, L.tr. = length of meso-metapeltidium segments, W. abd. = width of opisthosoma, W.c. = width of propeltidium, W.tr. = width of meso-metapeltidium segments.

Additionally, 9 indices of the ratios of individual parts of the body were calculated: (L.c./W.c.) = ratio of propeltidium length to its width,
(L.tr./W.tr.) = length of meso-metapeltidium segment to its width,
(L.ch.1/L.ch.2) = length of dorsal finger to length of ventral finger of chelicera,
(L.ps.1/L.tot., L.ps.2./L.tot., L.ps.3/L.tot., L.ps.4/L.tot.) = length of each of the 4 limbs to the total body length,
(L.pl./L.tot.) = ratio of pedipalp length to total body length,
(L.c./L.tot.) = ratio of propeltidium length to total body length.

Results

Taxonomy
Family Karschiidae Kraepelin, 1899
Genus *Karschia* Walter, 1889
Subgenus *Karschia* (*Karschia*) Walter, 1889
Karschia (*Karschia*) *caucasica* (L. Koch, 1878)

Synonyms and references. *Gluvia caucasica* L. Koch, 1878: 57-58; Simon, 1879: 133; Hansen, 1894: 186, 188, 190. *Karschia caucasica* (L. Koch): Kraepelin, 1899: 252; Kraepelin, 1901: 148, fig. 115 (in part, see *Karschia mastigofera* Birula) (as *Karschia caucasia*); Birula, 1922: 198; Roewer, 1932: figs. 122, 143c, 143c[1] (as *Karschia caucasia*); Roewer, 1933: 298 (as *Karschia caucasia*); Birula, 1938: 46-47, fig. 20 (referred to subgenus *Karschia* (*Rhinokarschia*) on p. 41); Aliev, 1981: 10; Aliev & Gadzhiev, 1983: 43-44.

Type territory. Baku, Absheron Peninsula, Azerbaijan.
Material examined: 1♂, Azerbaijan, Absheron peninsula, Baku, hollow with rocky slopes "Bailovskaya balka", May 1982; 1♂, near the highway "Baladzharskyi spusk", June 1982; 1♂, Shubany vil., July 1983; 1♂, south of the Absheron Peninsula, near the slope of the mountain "Bakinskie Ushi", July 1983; 1♂, Patamdar settlement near the edge of the Baku Plateau ("Wolchya gryada"), May 1983; 1♂, Umbaki settlement, May 1984; 1♂, 1♀, outskirts of Baku, the valley between the Baku Plateau and the Shubany hills ("Yasamalskaya dolina"), July 1985, leg. N. Novruzov.
Comparative material: 2♂♂, Azerbaijan, Absheron Peninsula, Baku, 6th micro district ("Byvshiy pitomnik") 40.37°N, 49.80°E, 114 m a.s.l., 24.05.1976, leg. Sh. Aliev (collection of the Institute of Zoology of Azerbaijan (IZBA).
Distribution. Azerbaijan, Absheron Peninsula, environs of Baku (Birula, 1938; Aliev, 1984).

Diagnosis: Males of this species are distinguished by the absence of a bulge in front of the teeth on the blade of the ventral finger of the chelicera, as well as an additional tooth in front of it. Two of the 4 setae of the dorsal finger of the chelicerae are longer and without cilia, the other two are shorter and have cilia. Flagellum extending from the base of the dorsal finger in the form of a spiral, the end of which is directed upwards. Flagellum and one of the setae of the flagellar complex (the longest) are longer than the dorsal finger of the chelicera (Birula, 1938). Dorsal (fixed) finger of chelicera in male with 10 teeth (3 anterior, 2 intermediate, 1 main, and 4 small zygomatic), in female with 9 teeth. Ventral (movable) finger of chelicera in male with 2 small teeth, in female with 3 teeth, 2 of which are the largest. Opisthosomal sternites III and IV in male with ctenidia; in female, ctenidia are present only on sternite IV.
Ecological comments. All found specimens of *K.* (*K.*) *caucasica* were found in the area of new buildings of the city, the vicinity of settlements, on the gentle rocky slopes of mountains and plateaus, in a semi-desert valley with wormwood-saltwort vegetation. Recesses and burrows under large stones, rocks, foundations of dilapidated buildings and various anthropogenic objects serve as shelters. Nutrition is practically not studied. According to our observations, the fragments of small specimens of spiders, beetles, and moths were observed in shelters of the males.
Notes. Endemic to Azerbaijan. All found individuals are small males (17-19 mm) and one female (about 23 mm). The female was found in the same shelter together with the male during mating. We believe that the limited number of males and the only female in the collections is explained not so much by the small number of the species as by the poor knowledge of the type territory during the years of material collecting. The species should presumably be considered extinct in the type territory of the Absheron Peninsula, since after 1985 it was not recorded here, and the territory itself, where most of our 6 specimens and collection (2 specimens) were previously collected, is currently almost completely urbanized. However, one cannot exclude the possibility of the presence of the species in the territory of the new localities visited by me located further south of the

Absheron Peninsula (Umbaki settlement; slope of the mountain "Bakinskie Ushi"). In addition, the possibility of finding this species in another localities spatially distant from the type territory of species cannot be excluded.

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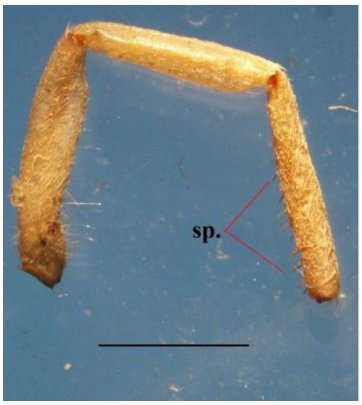

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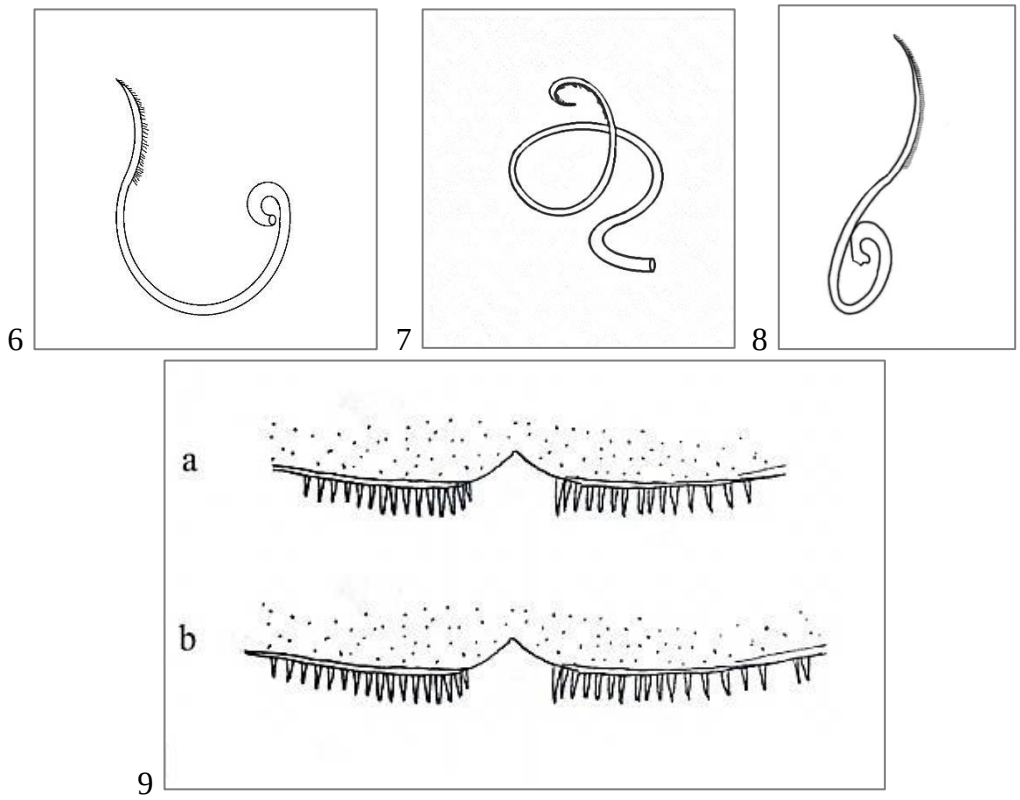
Figs. 1-5. *Karschia* (*Karschia*) *caucasica* (L. Koch, 1878) male. 1. Habitus, dorsal view (Scale bar: 10 mm). 2. Left pedipalp (sp. = spines) (Scale bar: 5 mm). 3-4. Left and right chelicerae (external view) (Scale bar: 1 mm). 5. Right chelicera (internal view) (fl. = flagellum, st. = setae).

Description of the male (for 7 individuals). Solifuges of small size. Habitus as in Fig. (1). Colour in alcohol are light brown or yellow-brown. The propeltidium and segments of the meso-metapeltidium are dirty clayey or clayey-yellow in colour, the opisthosoma is greyish-yellow; ocular tubercle light yellow or clayey yellow, convex, covered with fine hairs. The femur of the pedipalp is yellow with a brownish tinge; the tibia, metatarsus, and tarsus are brown. Metatarsus of pedipalp covered with long thin hairs and 4-5 short spines (Fig. 2). The first and second pair of limbs are yellow, the third and fourth pair of limbs are yellow-brown from the base (trochanter) to the end of the tibia. The tarsi of the second, third, and fourth pairs of limbs are not dissected, with short unpaired spines below. The dorsal (fixed) finger of chelicera is slightly curved and has 2 large, 3 medium, and 5 small teeth on the blade surface. The ventral (movable) finger of chelicera is more strongly curved than the dorsal finger; almost in the form of a semicircle, on the surface of its blade there are 2 relatively small, closely spaced teeth; the remaining 6 teeth are very small, distinguishable only when viewed under magnification (Figs. 3-4). The flagellar complex is located in front of the base of the dorsal finger of the chelicera and is represented by one long bristle (the flagellum itself), curved in the form of a semi-spiral, the end of which is directed upwards (on a living individual) or forward (in an alcohol

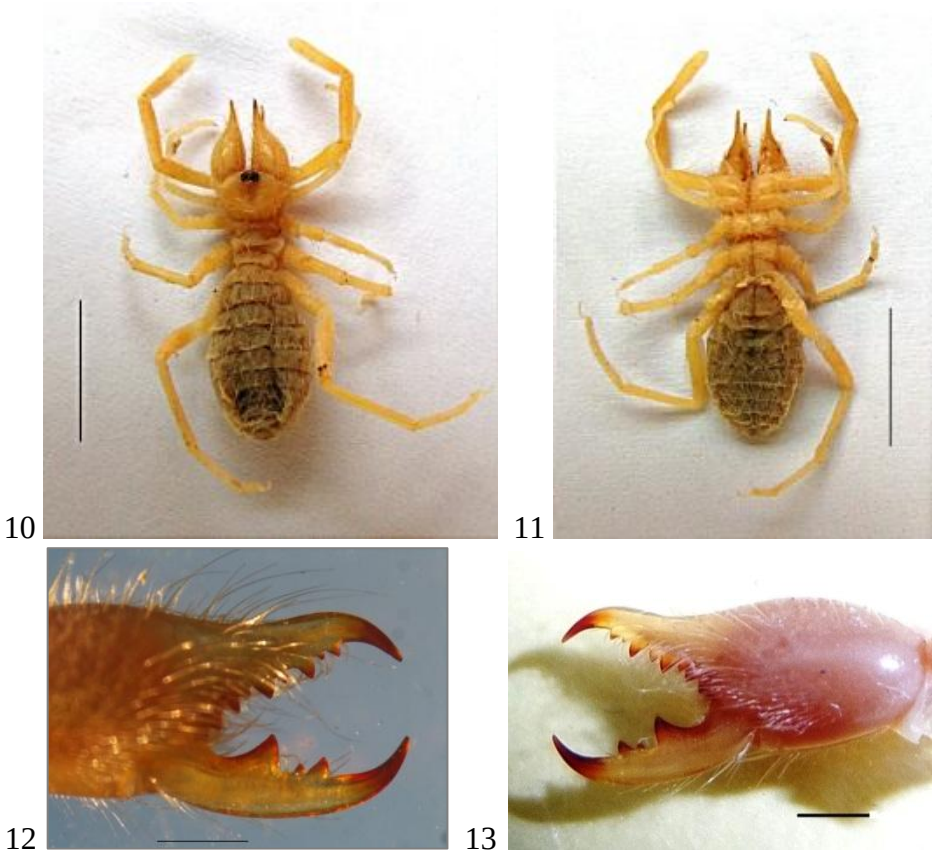
preserved individual), one long ciliated bristle directed anteriorly, and 4 short ciliated bristles, the ends of which are directed anteriorly and slightly bent upwards (Fig. 5). Spiral of flagellum may be different in form with sparse eyelashes at the very end (Figs. 6-8). Zygomatic setae 4-5, two of which are longer than of dorsal chelicerae. Opisthosomal sternites densely covered with short fine hairs and setae. The third segment of the opisthosoma has 15 short ctenidia on the posterior margin; the fourth segment of the opisthosoma has 17 short ctenidia (Fig. 9). The metric data of the main body parts are shown in Table (1).



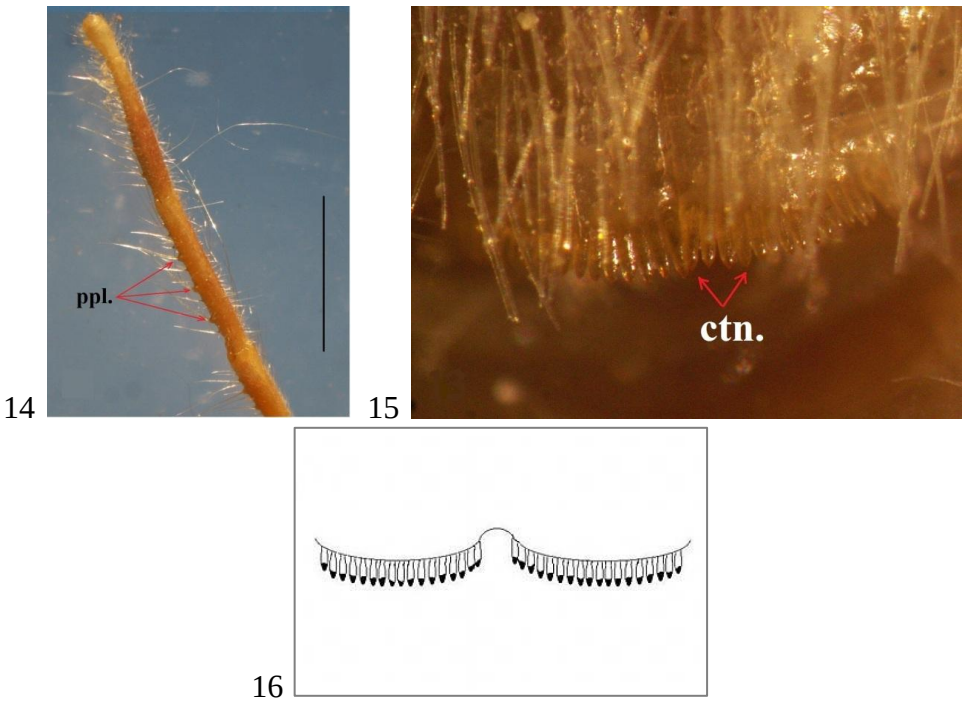
Figs. 6-9. *Karschia* (*Karschia*) *caucasica* (L. Koch, 1878) male. 6-8. Flagellum of different forms (top view). 9. Ctenidia on sternites III (a) and IV (b).

Variation. Total length varies in males from 17 to 19 mm. The colouration in males shows some noticeable differences between them for opisthosoma's colour. In two males, the dorsal surface of the opisthosoma is dark brown. The flagellum in two of the seven males has some variation in the form of curve and length of the spiral, the end of the spiral in them was directed forward, and not upwards as in other males.

Description of the female. Habitus as in Figs. (10-11). Body length about 23 mm. Dimensional data of the main characters and ratio indices of morphometric characters are shown in Tables (1-2). The body colour is yellow-brown, but somewhat darker than in most males. The upper surface of the propeltidium, chelicerae, and limbs is noticeably darker in colour than in males. The manus (on a living individual) is reddish in colour. The length of the propeltidium is almost twice its width. Ocular tubercle yellow-brown, with fine light yellow hairs and without setae. The ocular tubercle is not large, occupies less than 1/3 of the anterior margin of the propeltidium. There are 9 teeth on the blade of the dorsal (fixed) finger of the chelicera, three of which are the largest, three of medium size, the remaining 3 are very small, barely visible when viewed with the naked eye. The



Figs. 10-13. *Karschia* (*Karschia*) *caucasica* (L. Koch, 1878) female. 10-11. Habitus (dorsal and ventral views) (Scale bar: 10 mm). 12-13. Right chelicera. 12. external view. 13. internal view (Scale bar: 1 mm).



Figs. 14-16. *Karschia* (*Karschia*) *caucasica* (L. Koch, 1878) female. 14. Right pedipalp (ppl. = papillae) (Scale bar: 5 mm). 15-16. Ctenidia (ctn.) on sternite IV of opisthosoma (80 x magnified).

blade of the ventral (movable) finger of the chelicera has 3 teeth, one of which is clearly distinguishable (the largest), one of medium size (intermediate), and one very small (Figs. 12-13). Metatarsus of pedipalp is covered by long thin hairs and sparse short papillae (Fig. 14). The tarsi of the second, third, and fourth pairs of limbs are not dissected; they do not have spines from below, as in males. Opisthosoma sternites densely covered with long fine hairs and setae. Ctenidia on 4th sternite of opisthosoma: 17(R)/18(L) (Figs. 15-16). Sternites of the genital segment look like right triangles. The metatarsus of the third and fourth pairs of limbs have 2 spines and 6 setae each. The metric data of the main body parts are shown in Table (1).

Table 1. Data of the main morphometric characters of males and female *Karschia* (*Karschia*) *caucasica*.

Character	Metric values, mm		
	Male (n=7)		Female (n=1)
	min-max	M±m	
L.tot.	17.66-18.86	18.26±0.85	22.59
L.c.	2.23-2.49	2.36±0.18	2.74
W.c.	3.56-3.82	3.69±0.18	4.22
L.tr.	1.68-1.70	1.69±0.01	2.58
W.tr.	1.20-1.23	1.21±0.02	2.25
L.abd.	8.16-9.53	8.84±0.97	11.14
W.abd.	2.80-3.90	3.35±0.78	5.0
L.ps.1	9.81-10.17	9.99±0.25	11.47
L.ps.2	6.87-8.20	7.54±0.94	9.79
L.ps.3	11.62-13.43	12.52±1.28	12.71
L.ps.4	19.22-23.65	21.43±1.13	21.24
L.pl.	15.37-19.02	17.20±1.58	16.55
L.ch.1	4.10-5.19	4.64±0.77	5.42
L.ch.2	4.23-5.31	4.77±0.76	5.62

Dimensional characters and indices of body proportions. Dimensional characters of body parts and calculated indices of ratios of separate characters for 7 males and a single female *K.* (*K.*) *caucasica* are presented in Tables (1-2).

Table 2. Ratio indices of morphometric characters of males and female *Karschia* (*Karschia*) *caucasica*.

Index	Male (n=7)	Female (n=1)
L.c./W.c.	0.63	0.64
L.tr./W.tr.	1.39	1.14
L.ch.1/L.ch.2	0.97	0.96
L.ps.1/L.tot.	0.54	0.50
L.ps.2/L.tot.	0.41	0.43
L.ps.3/L.tot.	0.68	0.56
L.ps.4/L.tot.	1.17	0.94
L.pl./L.tot.	0.94	0.73
L.c./L.tot.	0.12	0.12

Sexual dimorphism. Differences in colouration between most of males and a single female are more pronounced only in living individuals, in preserved individuals, in alcohol, they are less pronounced. More noticeable differences in the overall size of the body and its parts, the presence of secondary sexual characters. All 7 males in total body length (L.tot.) are smaller than female and lighter in colour; they have longer 4th pair of limbs (L.ps.4) and pedipalps (L.pl.). The length and width of the propeltidium (L.c. & W.c.) and segments of meso-metapeltidium (L.tr. & W.tr.) are greater in female than in males. The chelicerae in males are also smaller (L.ch.1 & L.ch.2) than in the female, in a closed state they cross like a beak at a crossbill, equipped with spiral form flagellum and their appendages. The teeth on the blades of chelicerae in males are less pronounced, smaller, and in lesser number than in female. On the metatarsus and tarsus of the pedipalps, males have short spines and bristles that serve to hold the female during copulation. The opisthosoma of male is also smaller in length and width (L.abd. & W.abd.) than in female. The indices of the ratio of the length of the 4th limb (L.ps.4) and pedipalps (L.pl.) to the total body length (L.tot.), as well as the ratio of the length and width of the meso-metapeltidia in males are greater than in female.

Discussion

As we already noted at the beginning of the article, the holotype of the species *K.* (*K.*) *caucasica* was first described by L. Koch (1878). Then some additions to the description were made by Kraepelin (1901) and Roewer (1933). Description of the two male paratypes was made by Sh. Aliev (1984).

Kraepelin (1901) and Roewer (1933) described some morphological characters with rather contradictory data. So, for example, according to the description of Kraepelin, the flagellum on the dorsal finger of the chelicera forms two spirals, one at the base of the flagellum and the second closer to its end, and the end of the flagellum itself is directed upward and slightly backward; the middle part the flagellum is covered with cilia. Roewer described the flagellum differently, as a long ciliated seta almost from the middle to the very end, which does not form a distinct spiral at the base, but only curves first back and in, and then forward and up. According to the data of both authors, the two upper zygomatic setae are long, but not pinnate, but according to the description of Roewer (1933), there are two more thick shortened ciliated setae near them. Further, Roewer describes the ctenidia of the third segment not as pointed at their terminal part, as Kraepelin pointed out, but as club-shaped and with a blunt end. With such a different vision of key features on the same material, it is not surprising that both authors, each at one time, suggested that *K.* (*K.*) *caucasica* (with the exception of some details in the morphology of chelicerae and pedipalps) is not a separate species, but only an individual or local form close to the species *K.* (*K.*) *mastigofera* distributed throughout Eastern Transcaucasia (Birula, 1938). While respecting the opinion of these authors, we still cannot fully agree with them for several reasons. Firstly, it should be noted that according to the literature (Aliev, 1984; Gadzhiev, 1996) and our research, the solifuge *K.* (*K.*) *mastigofera* in Azerbaijan is only found in the Lesser Caucasus and has never been recorded in other regions of the republic, including on the Absheron Peninsula. Secondly, the fixed finger of the chelicera in *K.* (*K.*) *mastigofera*, is convex along the upper edge, and almost straight along the lower edge. While in *K.* (*K.*) *caucasica*, it is straight along the upper margin and slightly curved along the lower margin. Thirdly, the form and number of ctenidia in both species are strongly different. In addition, the absence of a female specimen in the material considered by the authors also reduces the objectivity of the diagnostic assessment of the species.

In the studied material, males were represented by 7 individuals, the flagellum of the dorsal finger of the chelicera in 3 males was in the form of a spiral with two turns and in 4 males, the flagellum was in the form of a semi-spiral with one turn. Position of the terminal part of the flagellum was both the front (anterior) and the back (posterior) or almost semi-vertical, i.e. differed to one degree or another, both in living specimens, and after their storage in alcohol.

The colouration of the surface of the body and its individual parts indicated by Kraepelin (1901) and Roewer (1933) for the holotype of male *K.* (*K.*) *caucasica*, as well as for two males indicated by Sh. Aliev (1984) cannot be used as a diagnostic feature at all. These signs are even more unstable and differed greatly in individuals after their storage in alcohol from living specimens.

According to the morphological study of the available material of the solifuge *K.* (*K.*) *caucasica* consisting of 7 males, the most significant distinguishing features of the species, in my opinion, can be considered primary signs that do not show variability. Such features in our material were: the form of fixed finger of chelicerae; the number and arrangement of teeth on the blade of both fingers of the chelicerae; the number and shape of ctenidia on the sternites of the opisthosoma. The remaining features showed significant variability in the material and therefore, in my opinion, can only be used as additional diagnostic features.

Conclusion

The study of the new material, consisting of 7 males and one female of the endemic solifuge *Karschia* (*Karschia*) *caucasica*, made it possible to somewhat clarify the data on the external morphology of males and to provide, for the first time, a description of the female. The arithmetic mean data of dimensional characters of the bodies of males, the original data of dimensional characters of the female, and 9 calculated indices of the proportions of characters for both sexes are given. For the first time, data on sexual dimorphism of this species were presented.

Acknowledgments

The author expresses his gratitude to his colleagues for valuable advice and comments during the preparation of the manuscript.

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New locality record of *Clubiona similis* L. Koch, 1867 (Araneae: Clubionidae) in Türkiye

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Abstract

Clubiona similis L. Koch, 1867 was previously recorded from Bursa Province, Osmangazi district in Türkiye. This new record is from Istanbul Province: Pendik district, Intercity Istanbul Park**.** Its general habitus and genitalia are illustrated. Short description and collecting data of this species are also given.

Keywords: Araneae, Clubionidae, *Clubiona similis*, new record, fauna, Türkiye.

Introduction

Family Clubionidae, known as sac spiders, consists of hunting spiders that are primarily nocturnal and commonly construct silken tubes for retreats. It is one of the small families in Araneae and currently represented by 664 species belonging to 18 genera worldwide (World Spider Catalog, 2023). Fourteen species of clubionids have been reported from Anatolia (Danışman *et al.*, 2023).

Material and Methods

In this study, only two female specimens were collected from forest area from Pendik in Istanbul (Fig. 1). Examined specimens were preserved in 70% ethanol and deposited in the Niğde Ömer Halisdemir University Arachnological Museum (NOHUAM). The identification depended on Danışman *et al.* (2018) using SZX61 Olympus stereo-microscope.

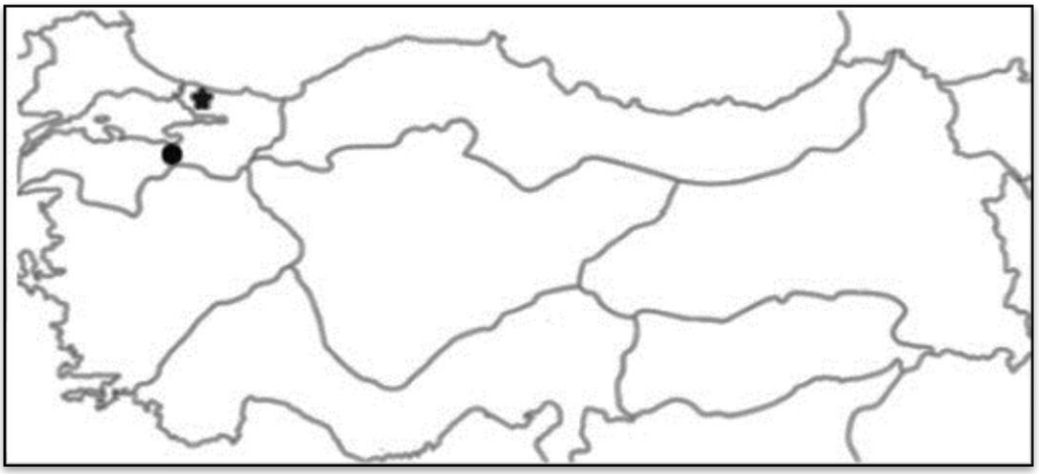


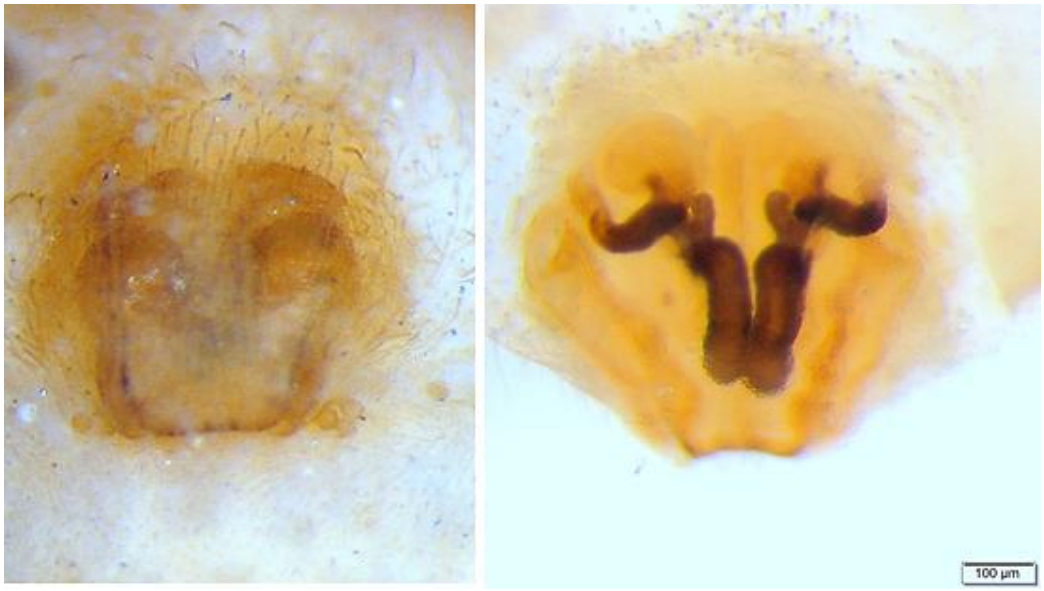
Fig 1. New locality of *Clubiona similis* L. Koch, 1867 in Istanbul Province, Türkiye (*). Previous locality in Bursa Province (circle).

Results

Clubiona similis L. Koch, 1867 Figs. (2-3)
Description of female: Body length 9 mm. Prosoma yellow-reddish, cephalic part brown-reddish coloured, chelicerae dark. Legs yellowish coloured. Opisthosoma grey-red (Fig. 2). Epigyne and vulvae as in Fig. (3).

Material examined: Istanbul Province: Pendik district, Intercity Istanbul Park (40°57'29"N, 29°24'27"E), 113 m, 23.V.2010 (2♀♀); leg. Tuncay Türkeş.

Fig. 2. *Clubiona similis* L. Koch, 1867 ♀, habitus, dorsal view.

A 

B

Fig 3. Female genitalia of *Clubiona similis* L. Koch, 1867. A. Epigyne, ventral view. B. Vulvae, dorsal view.

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Serket (2023) vol. 19(3): 246-248.

New record of the spider subfamily Urocteinae Thorell, 1869 (Araneae: Oecobiidae) in Türkiye

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Abstract

The female of the poorly known species, *Uroctea grossa* Roewer, 1960 is recorded for the first time from Türkiye. Digital photographs and a map of distribution records of *U. grossa* are provided. Description and collecting data of this species are also given.

Keywords: Araneae, Oecobiidae, Urocteinae, *Uroctea grossa*, new record, Fauna, Türkiye.

Introduction

Oecobiidae Blackwall, 1862 is a small spider family consisting of 120 species in six genera distributed almost worldwide (World Spider Catalog, 2023). Two genera are known from Türkiye: *Oecobius* Lucas, 1846 (Oecobiinae) and *Uroctea* Dufour, 1820 (Urocteinae). Two species of *Uroctea* are known to occur in Türkiye: *U. durandi* (Latreille, 1809) and *U. thaleri* Rheims, Santos & van Harten, 2007 (Danışman *et al.*, 2023). During spider collecting studies, we found two females of *U. grossa*. The goal of this paper is to report *U. grossa* as a new record for the Turkish Spider Fauna.

Material and Methods

In this study, only two female specimens were collected from Ermenek district from Mediterranean Region in Türkiye. Examined specimens were preserved in 70% ethanol and deposited in the Niğde Ömer Halisdemir University Arachnological Museum

(NOHUAM). In the identification, Fomichev & Marusik (2020) and Zamani & Bosselaers (2020) were consulted. The identification was made by means of SZX61 Olympus stereomicroscope.

Fig. 1. Collecting locality of *Uroctea grossa* Roewer, 1960 in Türkiye.

Results

Uroctea grossa Roewer, 1960 Figs. (2-3)

Taxonomic references
Uroctea grossa Roewer, 1960.
Uroctea grossa Zamani *et al.*, 2015.
Uroctea grossa Zamani & Bosselaers, 2020.
Uroctea grossa Fomichev & Marusik, 2020.

Material examined: Karaman Province, Ermenek District: Güneyyurt (Fig. 1), about 36°41′N 32°50′E, 1054 m, 27.VI.2007, 2♀♀, leg. Tuncay Türkeş.

Fig. 2. *Uroctea grossa* Roewer, 1960 ♀. Habitus, dorsal view.

Description: ♀ (Fig. 2). Measurements (n=2): Total length 14-15 mm. Carapace 5.6-5.8 mm, long, 6.9-7.1 mm wide. Abdomen 12-12.5 mm long, 8-8.1 mm wide. Prosoma light brown, with longitudinal dark brown median stripe and dirty-yellow edges. Sternum bright brown. Labium yellow anteriorly, dark brown posteriorly. Maxillae yellow-brown. Chelicerae brown. Coxae brown with yellow spots. Palps and legs yellow-brown. Abdomen grey with small dirty-yellow speckles. Spinnerets grey. Female genitalia as in Fig. (3).

Comment: This species can be easily separated by genitalia and habitus from *U. durandi* and *U. thaleri* (Figs. 2-3).

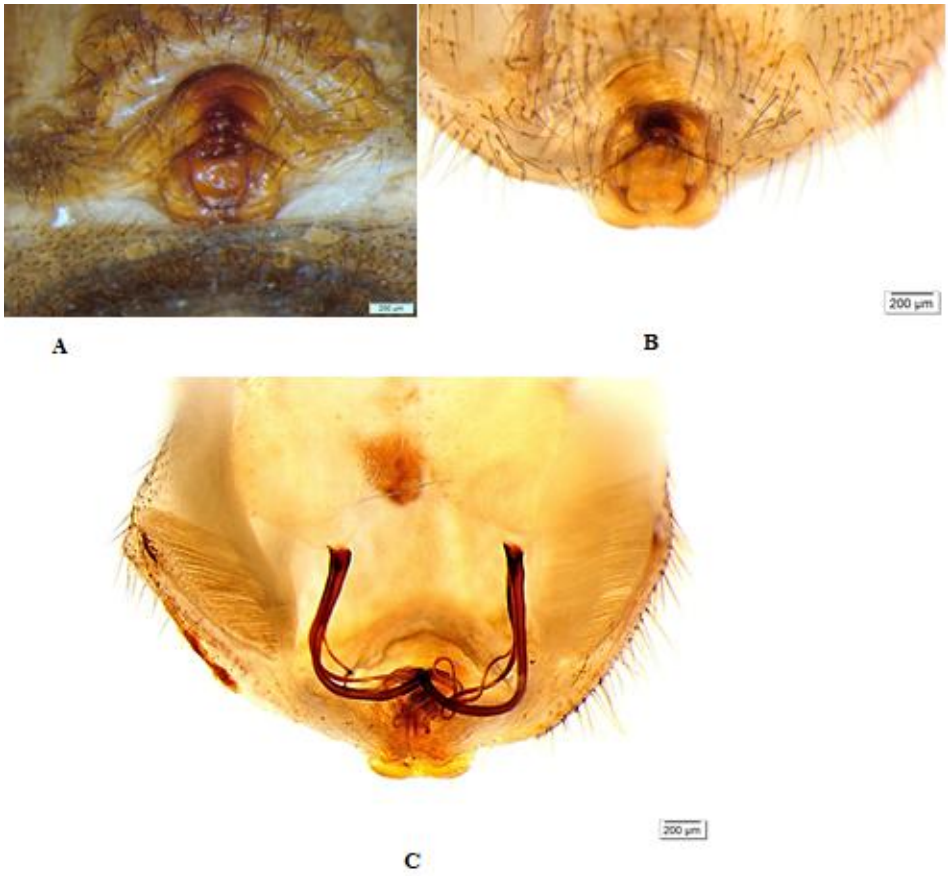

Fig. 3. Female genitalia of *Uroctea grossa* Roewer, 1960. A-B. Epigyne, ventral view. C. Vulvae, dorsal view. (B-C. cleared).

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Rhysodromus hierosolymitanus (Levy, 1977) (Araneae: Philodromidae): an addition to the spider fauna of Türkiye

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Abstract

The philodromid species *Rhysodromus hierosolymitanus* (Levy, 1977) is here reported for the first time from Türkiye. In addition, its morphology is briefly described and illustrated.

Keywords: Araneae, Philodromidae, *Rhysodromus hierosolymitanus*, new report, Türkiye.

Introduction

Philodromidae, known as running crab spiders, is a medium sized entelegyne spider family comprising a world fauna of 522 species in 29 genera (World Spider Catalog, 2023). In Türkiye, the number of Philodromidae species has increased to 40 due to recent studies (Muster, 2009; Logunov & Kunt, 2010; Türkeş & Demir, 2011; Danışman & Coşar, 2020). This family is represented by 5 genera in Türkiye: *Philodromus*, *Pulchellodromus*, *Rhysodromus*, *Thanatus*, and *Tibellus* (Demir & Seyyar, 2017; Danışman *et al.*, 2023). According to current data, only two *Rhysodromus* species have so far been recorded from Türkiye: *Rhysodromus fallax* (Sundevall, 1833) and *R. histrio* (Latreille, 1819). This short paper presents the characteristic features and distribution of *Rhysodromus hierosolymitanus* (Levy, 1977) adding a new species to the araneo-fauna of Türkiye. This record increases the total number of philodromid species recorded in Türkiye to 41 species.

Material and Methods

Specimens were collected in the Elazığ province of Türkiye, with a hand aspirator. Identification depended on Torabi *et al.* (2019). The photographing of the samples were performed by a Canon EOS 250D camera attached to a Leica S8AP0 stereomicroscope. Images were stacked using 'Combine ZM' image stacking software and edited with the 'Photoshop CC 2019' software. The map of the record was prepared using SimpleMappr (Shorthouse, 2010). Measurements are given in millimetres. The studied samples were preserved in 70% ethanol and deposited in the collection of the Arachnological Museum of Kırıkkale University (KUAM).

Results

Rhysodromus hierosolymitanus (Levy, 1977) (Figs. 2-3)
Material examined: 2♂♂, Elazığ Province, Maden District (38°25'51.4"N, 39°37' 49.6"E), 15.04.2022, 1124 m, from almond tree, leg. İ. Özgen (Fig. 1).
Distribution: Israel, United Arab Emirates, Iran, Kazakhstan (World Spider Catalog, 2023).
Description of Male: Prosoma light yellowish-brown, posteriorly on both sides with large, dark brown spots. Opisthosoma yellowish, with numerous small black and white spots (Fig. 2A). Chelicerae light yellowish brown, sternum light yellow without a pattern. Anterior median eyes distinctly the largest eyes (Fig. 2B). Legs light yellow, with brown speckles. Leg II moderately elongated, at most 1.5 times as long as leg I. Retrolateral tibial apophysis bipartite, broadly incised with a weak median notch, not pointed. Embolus short and stout with pointed distal tip. Pedipalp characteristic, as in Fig. (3). Measurements: Total length 4.10. Prosoma length 1.80, width 1.90. Abdomen length 2.30, width 1.70. Ocular area length 0.65. Chelicerae length 0.70, width 0.35. Sternum length 1.0, width 1.10. Clypeus height 0.20. Leg lengths: Leg I 8.9 (2.6, 0.8, 2.4, 2.1, 1.0), Leg II 13.6 (4.0, 1.2, 3.6, 3.4, 1.4), Leg III 8.8 (2.8, 0.8, 2.2, 2.1, 0.9), Leg IV 8.7 (2.7, 0.7, 2.2, 2.2, 0.9).

Fig. 1. Distribution map of *Rhysodromus hierosolymitanus* (Levy, 1977) (red star) in Türkiye.

Fig. 2. *Rhysodromus hierosolymitanus* (Levy, 1977) ♂. A. habitus, dorsal view. B. prosoma, frontal view. (Scale bar: 1.0 mm).

Fig. 3. *Rhysodromus hierosolymitanus* (Levy, 1977) ♂ palp. A. ventral view. B. retrolateral view. (Scale bar: 0.5 mm).

Discussion

R. hierosolymitanus is found in a meadow habitat with blooming almond trees (Fig. 4). The white flowers of the almond tree give it superior camouflage ability. This spider is reported for the first time from Türkiye. Compared to the Iranian samples (Torabi *et al.*, 2019), little difference was observed in the individual body measurements of the Turkish samples.

Fig. 4. Habitat of *Rhysodromus hierosolymitanus* (Levy, 1977).

Acknowledgment

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First record of the jumping spider *Menemerus animatus* O. Pickard-Cambridge, 1876 in Türkiye (Araneae: Salticidae)

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Abstract

In this study, a new record of *Menemerus animatus* O. Pickard-Cambridge, 1876 (♀) is presented from Elazığ province. Its morphology is briefly described and illustrated. The distribution of this species and other species belonging to genus *Menemerus* Simon, 1868 in Türkiye is also mapped adding new locality records of *Menemerus semilimbatus* (Hahn, 1829) with its description.

Keywords: Araneae, Salticidae, *Menemerus*, new record, systematics, Anatolia, Türkiye.

Introduction

Family Salticidae Blackwall, 1841 is represented by 672 genera and 6525 species in the world. Within this family, the genus *Menemerus* Simon, 1868 is represented by 63 species (World Spider Catalog, 2023). Only 13 of these species has been recorded from Europe (Nentwig *et al.*, 2023). With the recent studies in Türkiye, the number of species belonging to Salticidae has increased to 150 (Demir & Seyyar, 2017; Coşar & Danışman, 2022; Danışman *et al.*, 2023). Among these species, genus *Menemerus* is represented by only three species. These species are: *Menemerus bivittatus* (Dufour, 1831), *M. semilimbatus* (Hahn, 1829), and *M. taeniatus* (L. Koch, 1867). This paper presents the characteristic features and distribution of *Menemerus animatus* O. Pickard-Cambridge, 1876 adding a new species to the araneo-fauna of Türkiye. With this new registration, the Salticidae family has been increased to 151 species. Also, the distribution of the four

Menemerus species found in Türkiye is mapped adding new locality records of *M. semilimbatus* with its description.

Material and Methods

This study is based on material collected from different regions of Türkiye. Specimens were collected by means of a hand aspirator from under stones and on plants. Identification was made using a Leica S8APO stereo microscope. Pictures were taken using this microscope by means of a Canon EOS 250D camera. Images were stacked and then edited by means of the Combine ZM and Photoshop CC 2019 software. Specimens were preserved in 70% ethanol. Abbreviations used in the text are as follows: ALE = anterior lateral eye, AME = anterior median eye, Fe = femur, Mt = metatarsus, Pa = patella, PLE = posterior lateral eye, PME = posterior median eye, Ta = tarsus, Ti = tibia. All measurements are given in millimetres. Specimens are deposited in the collection of the Arachnological Museum of Kırıkkale University (KUAM). Map is compiled by SimpleMappr (Shorthouse, 2010).

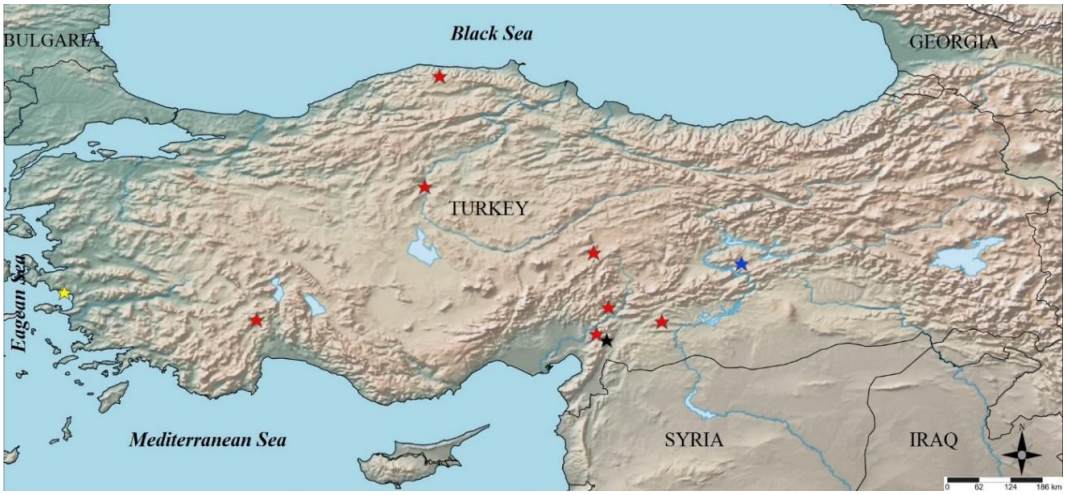

Fig. 1. Distribution map of the *Menemerus* species reported from Türkiye: *M. animatus* (blue star) and *M. semilimbatus* (red stars) (new records); *M. bivittatus* (black star) and *M. taeniatus* (yellow star) (Coşar & Danışman, 2022).

Results

Family **Salticidae** Blackwall, 1841
Genus **Menemerus** Simon, 1868
Type species: *Menemerus semilimbatus* (Hahn, 1829)

Menemerus animatus O. Pickard-Cambridge, 1876 (Figs. 2-3)
Material examined: 1♀, Türkiye, Elazığ Province, Pağnik Village, 38°31'47"N, 39°01'12"E, elev. 1285 m, 12.10.2022, İ. Özgen leg., from under stone.
Distribution: Senegal, Mauritania, Mali, North Africa, Greece, Sudan, Yemen, Saudi Arabia, Iraq (World Spider Catalog, 2023). The records in Türkiye are shown in Fig. (1).
Female description: Measurements: Total length 5.70. Prosoma 2.50 long, 2.0 wide, 0.90 high. Opisthosoma 3.20 long, 2.10 wide, 0.70 high. Ocular area 1.60 long. Sternum 1.20 long, 0.90 wide. Chelicerae 0.80 long, 0.50 wide. Eye diameter and inter-distances: AME 0.50, ALE 0.30, PME 0.10, PLE 0.25, AME–AME 0.05, AME–ALE 0.05, PME–PME 1.40, PME–PLE 0.30, PLE–PLE 1.30, PLE–ALE 0.65. Leg formula IV-I-III-II. Leg

measurements: Leg I. Fe 1.60, Pa 1.0, Ti 1.20, Mt 0.90, Ta 0.60, Total: 5.30; Leg II. Fe 1.50, Pa 0.80, Ti 1.10, Mt 0.80, Ta 0.60, Total: 4.80; Leg III. Fe 1.50, Pa 0.60, Ti 1.0, Mt 1.10, Ta 0.70, Total: 4.90; Leg IV. Fe 1.90, Pa 0.90, Ti 1.50, Mt 1.30, Ta 0.90, Total: 6.50. Prosoma is light brown (Fig. 2-A). Its edges are yellow (Fig. 2-C). The eye area is black and covered with long dark hairs (Fig. 2-A). The AME are surrounded by intensely white hairs (Fig. 2-D). Clypeus is narrow, brown and covered with long white hairs (Fig. 2-D). Chelicerae are brown (Fig. 2-D). Sternum is yellow and covered with light hairs (Fig. 2-B). Abdomen is yellowish white and covered with short light-coloured hairs (Fig. 2-A). There are brown hairs on its edges (Fig. 2-A). The legs are yellowish brown and covered with short white hairs. Female epigyne as in Fig. (3).

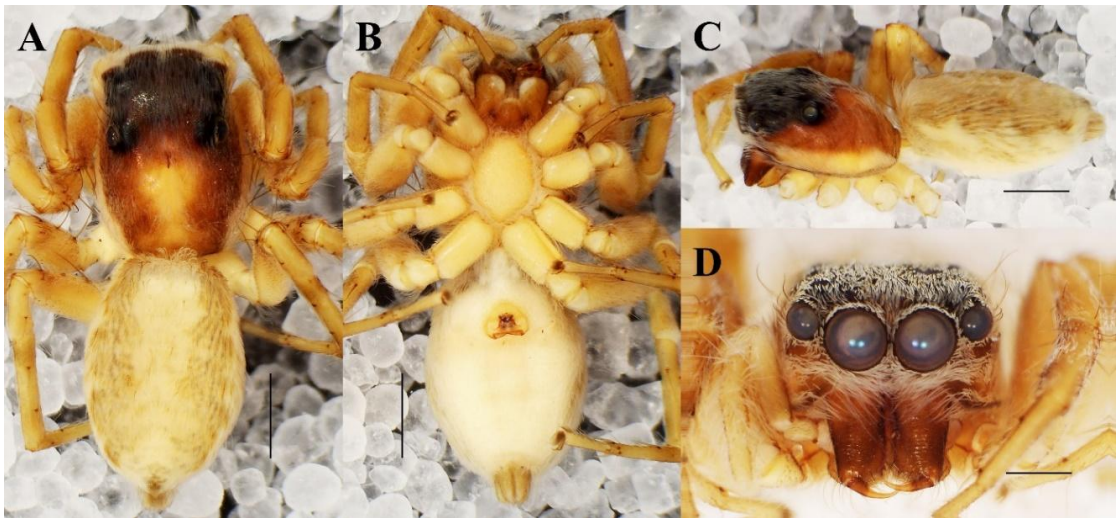

Fig. 2. *Menemerus animatus* O. Pickard-Cambridge, 1876 ♀. A-D. habitus. A. dorsal view. B. ventral view. C. lateral view. D. frontal view. (Scale bars: A-C 1.0 mm, D 0.5 mm).

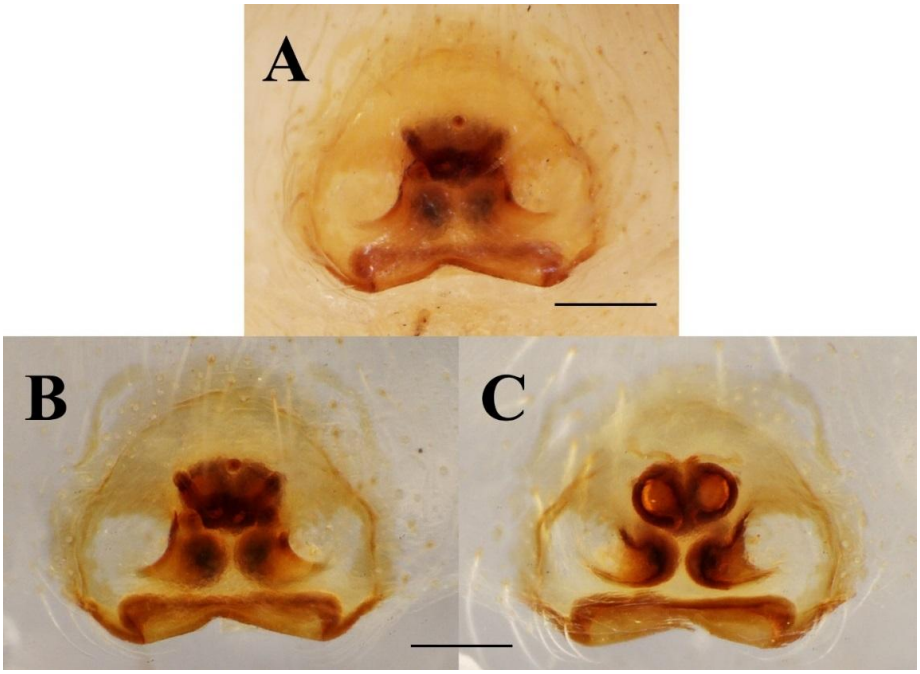

Fig. 3. *Menemerus animatus* O. Pickard-Cambridge, 1876 ♀. A-C. epigyne. A-B. ventral view. C. vulvae, dorsal view. (B and C, after maceration) (Scale bar: 0.5 mm).

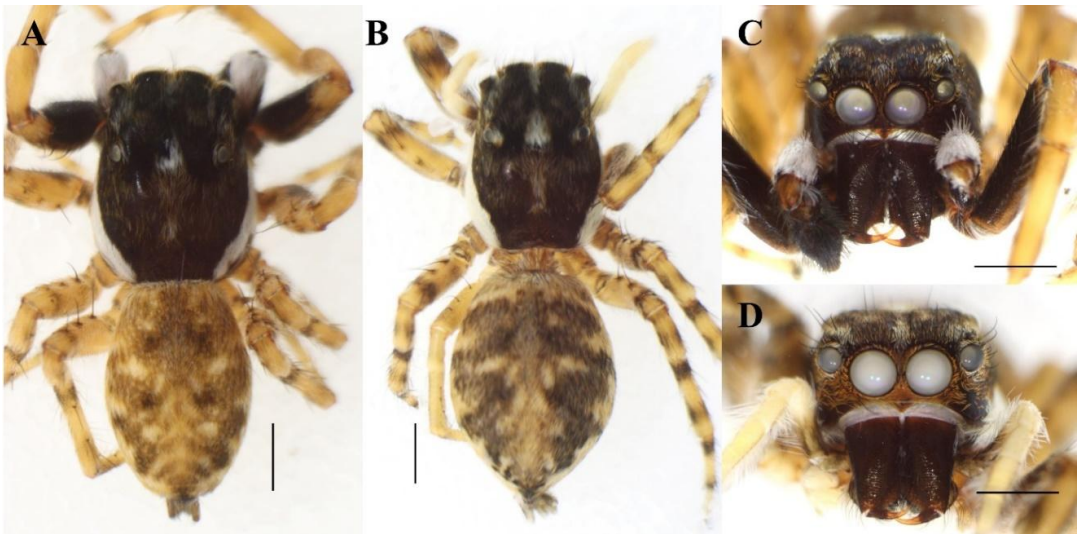

Fig. 4. *Menemerus semilimbatus* (Hahn, 1829). A-D. habitus. A-B. dorsal view. C-D. frontal view. A, C. male. B, D. female. (Scale bars: A-B 1.0 mm, C-D 0.5 mm).

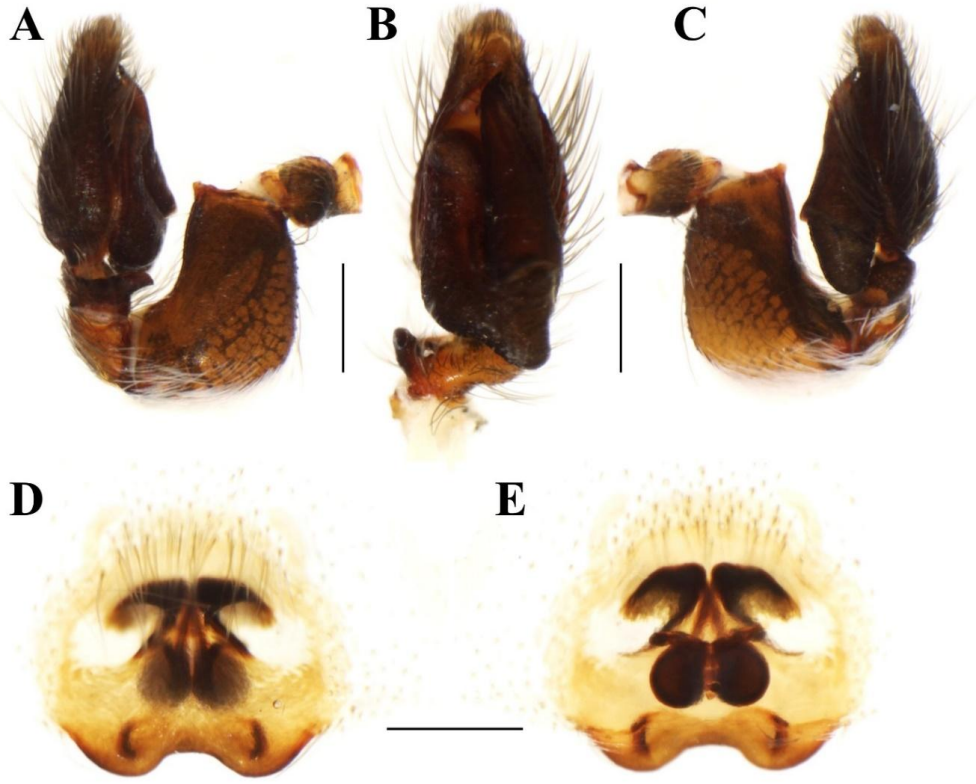

Fig. 5. *Menemerus semilimbatus* (Hahn, 1829) ♂ palp. A, C. lateral view. B. ventral view. D-E. ♀ epigyne (after maceration). D. ventral view. E. vulvae, dorsal view. (Scale bars: 0.5 mm).

Menemerus semilimbatus (Hahn, 1829) (Figs. 4-5)
Material examined: 2♂♂, Kastamonu Province, Küre District, 41°48'41"N, 33°42'53"E, elev. 860 m, 05.05.2013, leg. İ. Coşar and T. Danışman. 3♂♂, 2♀♀, Kahramanmaraş Province, Onikişunat District, 37°45'24"N, 36°40'54"E, elev. 665 m, 06.09.2019, leg. İ. Coşar and T. Danışman. 2♂♂, 1♀, Adıyaman Province, Besni District, 37°30'32"N, 37°37'27"E, elev. 807 m, 22.06.2019, leg. İ. Coşar and T. Danışman. 3♂♂, 5♀♀, Burdur

Province, Çeltikçi District, 37°31'52"N, 30°29'28"E, elev. 852 m, 10.08.2022, leg. İ. Coşar. 1♂, 1♀, Osmaniye Province, Düziçi District, 37°16'48"N 36°28'14"E, elev. 355 m, 01.09.2022, leg. İ. Coşar and T. Danışman. 3♂♂, 1♀, Kırıkkale Province, Yahşihan District, 39°52'26"N, 33°27'02"E, elev. 762 m, 06.09.2019, leg. İ. Coşar. 1♂, 1♀, Kayseri Province, Pınarbaşı District, 38°43'03"N, 36°25'17"E, elev. 1530 m, 12.06.2022, leg. İ. Coşar.

Distribution: Canary Is., Mediterranean, Eastern Europe, Türkiye, Caucasus, Iran. Introduced to Argentina, Chile, USA (World Spider Catalog, 2023).

Acknowledgment

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Zoropsis rufipes (Lucas, 1838), a historical stowaway from the Canary Islands to the United Kingdom in bananas (Araneae: Zoropsidae)

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Abstract

Zoropsis rufipes (Lucas, 1838) is a recorded stowaway to the United Kingdom but the literature in which it was recorded is not widely known. It has thus hitherto not been recorded as a known stowaway in the modern checklists of British spiders. Recently, we discovered specimens in the Natural History Museum, London, providing further records, allowing us to discuss the prior literature, and provide images of the genitalia of this species, which shows notable epigynal variation.

Keywords: invasive species, vagrant, non-native, epigyne, morphology, museum.

Introduction

Zoropsis rufipes (Lucas, 1838) was described under several names from the Canary Islands (Lucas, 1838; O. Pickard-Cambridge, 1908; Schmidt, 1975a-b) and is now known specifically from the islands Gran Canaria, La Gomera, La Palma, Tenerife, and more recently from neighbouring Madeira (Wunderlich, 1987). Its prior taxonomy (see synonymy list below) was likely influenced by the fact that epigynal variation, particularly in the shape and size of the scape, is often very pronounced (see Levy, 1990; pers. obs.).

Recently, whilst curating specimens in the historical collection of the Natural History Museum, London (NHMUK), we encountered a jar of *Z. rufipes* which contained tubes of material indicating they had been imported to the United Kingdom with bananas. Whilst this jar has evidently been examined by several arachnologists, to our knowledge no formal records of these particular specimens exist in the published literature.

In this work, we report and illustrate these specimens, also taking the opportunity to summarise the historical records of this species which seem to have been overlooked by other contemporary British arachnologists. This species has not been listed as a non-native taxon in modern checklists of British spiders (i.e. Merrett & Murphy, 2000; Merrett *et al.*, 2014; Lavery, 2019), nor in the most recent checklist amendment (Lavery, 2021).

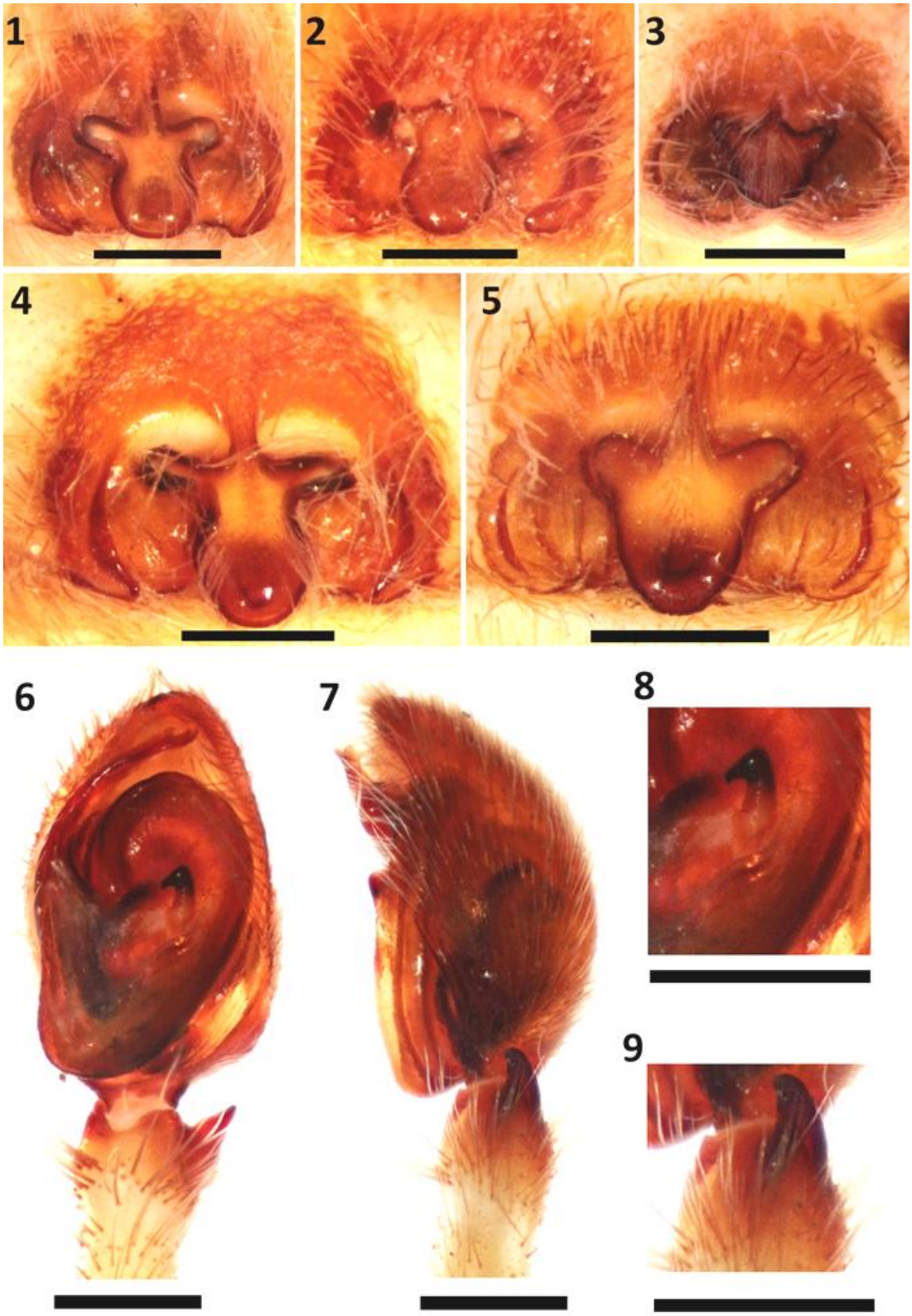
Material and Methods

Photographs were made by DS using a Canon EOS 6D Mark II attached to a Leica MZ12.5 with images stacked using Helicon Focus software. Abbreviations: NHMUK = Natural History Museum, London, United Kingdom. Authors' emphases in [].

Results

Zoropsis rufipes (Lucas, 1838)
Olios rufipes Lucas, 1838: 32, pl. 6, fig. 13 (♂).
Zoropsis rufipes: Simon (1880): 344 (♀).
Zoropsis rufipes: O. Pickard-Cambridge (1908): 820, pl. 50, figs. 18-21 (♀).
Zoropsis maculosa O. Pickard-Cambridge, 1908: 822, pl. 50, figs. 22-24 (♀).
Zoropsis rufipes: Schmidt (1956a): 84 (synonymy of *Z. maculosa*).
Zoropsis rufipes: Schmidt (1956b): 240, fig. 7a (♀).
Zoropsis capillata Schmidt, 1975a: 219, figs. 1-2 (♂♀).
Zoropsis teneriffensis Schmidt, 1975b: 501, fig. 1 (♀).
Zoropsis teneriffensis: Schmidt (1982): 4, fig. 1a-b (♂).
Zoropsis rufipes: Wunderlich (1987): 231, figs. 611-619 (♂♀, synonymy of *Z. capillata* and *Z. teneriffensis*).
Zoropsis rufipes: Levy (1990): 142, figs. 20-22 (♂♀).
Zoropsis rufipes: Wunderlich (1995): 725, figs. 10-14 (♂♀).
Zoropsis rufipes: Thaler & Knoflach (1998): 181, figs. 16-17, 20-21, 27 (♂♀).
Zoropsis rufipes: Silva-Dávila (2003): 57, fig. 23a (♀).
(Modified after World Spider Catalog, 2023)

Material examined. 1♀ (NHMUK 015212231), among bananas from 'Los Velos, Chile' [locality on label erroneous], Feb. 1956, Min. Agric. Fish & Food, det. Baptista VIII/99; 1♀ (NHMUK 015212232), BMNH 1956.4.23.1, in lorry after carrying bananas, Edinburgh, Scotland, 20/1/1956, coll. E.J. Bezant, Min. Agric. Fish & Food, det. E.B. [Ernest Browning]; 1♀ (NHMUK 015212233), *Zoropsis* sp. imported into Scotland, D.A.F.S., No. 6/85, CIE A16799, det. Baptista VIII/99; 1♂, 1♀ (NHMUK 015212234), BMNH 1956.12.14.1-2, from banana store, Reading, Berks., 29/08/1956, coll. T.W. Gwatkin; 1♀ (NHMUK 015212235), in bananas from Canary Isl., [coll.] Kendal, 24/VI/74, det. F. Wanless.



Figs. 1-9. *Zoropsis rufipes* (Lucas, 1838), non-types found as stowaways in the United Kingdom. 1-5. female epigynes, uncleared, ventral view. 1. (NHMUK 015212231). 2. (NHMUK 0152122321). 3. (NHMUK 015212233). 4. (NHMUK 015212234). 5. (NHMUK 015212235). 6-9. palp of adult male (NHMUK 015212234). 6. ventral view. 7. retrolateral view. 8. close-up of median apophysis. 9. close-up of retrolateral tibial apophysis. (Scale bars: 1 mm). Photographs by Danniella Sherwood, © The Trustees of the Natural History Museum, London.

Remarks. *Zoropsis rufipes* is well-recorded as a stowaway in Germany with bananas (Schmidt, 1956a-b, 1975a). Interestingly, three works (O. Pickard-Cambridge, 1908, 1910; Carr, 1919), including the original description of *Zoropsis maculosa* O. Pickard-Cambridge, 1908 (synonymised with *Z. rufipes* by Schmidt, 1956a), record this species as a stowaway in bananas from the Canary Islands imported to the United Kingdom. However, this has seemingly escaped the attention of many British arachnologists, as this species does not occur in the non-native appendix to the most recent checklist of British spiders (Lavery, 2019) nor the two previous checklists produced in this century (Merrett & Murphy, 2000; Merrett *et al.*, 2014).

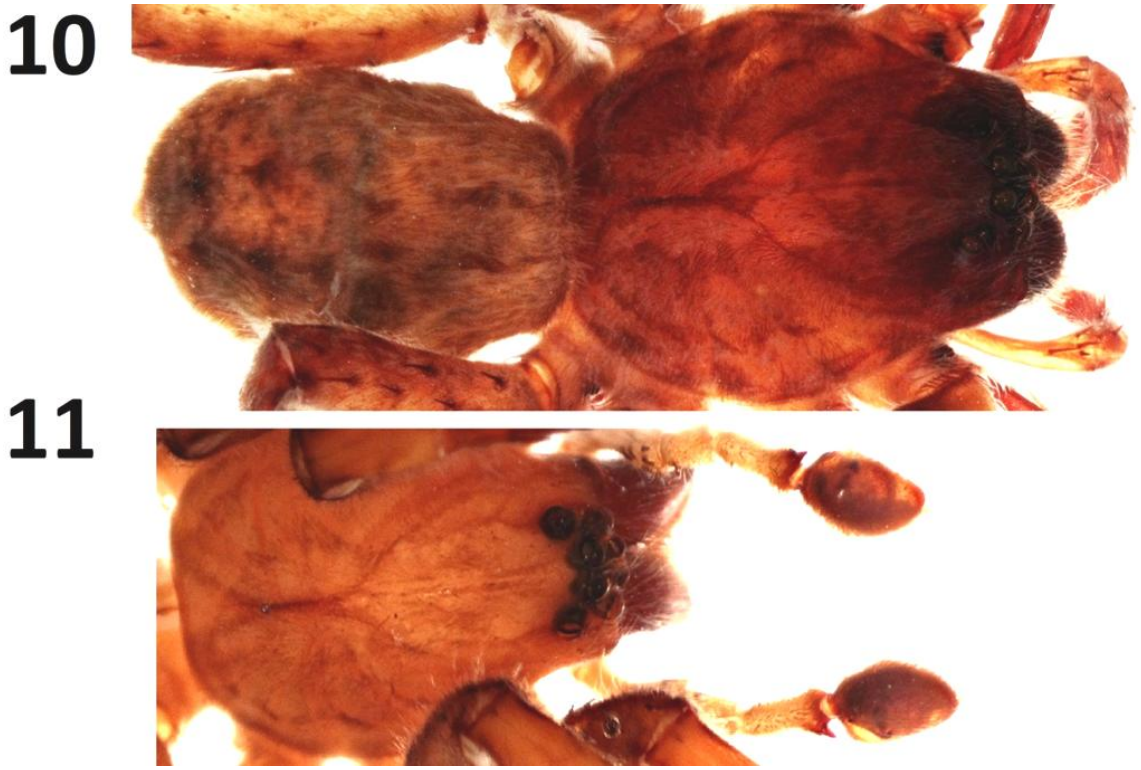
O. Pickard-Cambridge (1908) discusses an adult female of *Z. rufipes* found in bananas from the Canary Islands. It is mentioned as being received from "Mr. H. Speyer of Reigate". O. Pickard-Cambridge (1908) placed a question mark before the scientific name of this species in the heading, presumably indicating he wasn't entirely sure it was this species. This may have been due to its poor condition. He indicates the species-level identification was suggested by Eugène Simon (1848-1924). It is possible that the specimen was detected in Reigate, but equally it may simply have been sent from there by Speyer to Pickard-Cambridge. In the same work, *Zoropsis maculosa* O. Pickard-Cambridge, 1908 is described, based on an immature female and immature male. The types, also discovered in bananas from the Canary Islands, were donated to Pickard-Cambridge by H. Speyer, so may possibly have been detected in Reigate (see above). Clearly, Pickard-Cambridge thought this material distinct to the female recorded in the same work as *Z. rufipes* based on the morphology of the [pre-] epigyne.

O. Pickard-Cambridge (1910) reports an adult female sent to him from bananas from the Canary Islands which were imported to Yorkshire. O. Pickard-Cambridge (1910) also notes: "Of this species I had received, from another correspondent about three years ago, several young examples from the same locality, and also in a package of bananas". This is in reference to the specimens reported in O. Pickard-Cambridge (1908), but there is a presumable error, as the specimen reported as *Z. rufipes* is an adult female, as mentioned in the original work, and thus cannot be considered a 'young example'. Carr (1919) reports an adult female sent to him from a greengrocers in Lichfield, Staffordshire. Again, the origin was a shipment of bananas from the Canary Islands.

It is prudent to note this species is also recorded as a stowaway in the Republic of Ireland. An adult female was reported from a shipment of bananas that was shipped directly from the Canary Islands to Liverpool, and then from Liverpool to Limerick (Pack-Beresford, 1910).

One of the specimens reported here has erroneous label data indicating the bananas originated from Chile. Incorrect localities are occasionally found on labels of stowaway specimens, especially if they have been discovered at a facility that imports fruit from many countries around the world (pers. obs.).

As stated succinctly by Levy (1990: 143): "... Considerable variation in the contours of the scape is encountered in any sample of *Z. lutea* (Fig. 15), likewise in *Z. rufipes*. None of the variations can be linked with any given locality. ...". The specimens examined herein also demonstrate striking variation in the epigyne (Figs. 1-5). Of the specimens examined, only one is an adult male, of which we provide photographs of the palp (Figs. 6-9) to compliment line drawings in the prior literature. For reference, the preserved habitus of the female is also included (Fig. 10), showing the carapace and opisthosomal patterns. The male examined has a near-identical opisthosomal pattern to the females but, conversely, shows differences in the carapace markings (Fig. 11).



Figs. 10-11. *Zoropsis rufipes* (Lucas, 1838), non-types found as stowaways in the United Kingdom, habitus, dorsal view. 10. cephalothorax and opisthosoma of female (NHMUK 015212231). 11. cephalothorax of male (NHMUK 015212234).

Acknowledgments

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Oedignatha elhennawyi nom. nov., a replacement name for *Oedignatha indica* Reddy & Patel, 1993 (Araneae: Liocranidae)

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Abstract

The liocranid spider *Oedignatha indica* Reddy & Patel, 1993 is a junior homonym of *Oedignatha indica* (Tikader, 1981), resultant from the latter species recently being transferred to this genus. *Oedignatha indica* Reddy & Patel, 1993 has no junior synonyms, and thus a replacement name is newly proposed in this work: *Oedignatha elhennawyi* **nom. nov.**

Keywords: preoccupied, homonym, nomenclature, spider, India.

Introduction

Reddy & Patel (1993) described *Oedignatha indica* Reddy & Patel, 1993 based on both sexes from Anakapalli, Visakhapatnam, Andhra Pradesh, India. The illustrations are sufficient to indicate it is correctly placed in this genus, based on the form of the genitalia of both sexes. Bastawade (2002) described *Amaurobius indicus* Bastawade, 2002 from near Khalapur, Maharashtra, India, also based on both sexes. This misplaced species was later transferred to *Oedignatha* by Bastawade (2006), who gave the newly combined species the replacement name *Oedignatha raigadensis* Bastawade, 2006 to resolve the homonymy with *O. indica* Reddy & Patel, 1993 that the transfer created.

Tikader (1981) described *Castianeira indica* Tikader, 1981 from Poona, Maharashtra, India based on both sexes. This species was also illustrated by Majumder & Tikader (1991) who reproduced the illustrations from Tikader (1981). Deeleman-Reinhold (2001: 263) stated: "... the female holotype (but not the male paratype) of *Castianeira indica* Tikader, 1981 from India belongs in *Oedignatha*" indicating the type

series was not entirely conspecific nor even congeneric. She later reiterates that this species and another (= *Castianeira bengalensis* Biswas, 1984, now a synonym of *Oedignatha scrobiculata* Thorell, 1881) were "... misplaced in *Castianeira* and probably belong in *Oedignatha*." (Deeleman-Reinhold, 2001: 396). Dhali, Saha & Raychaudhuri (2017) provide new records of *C. indica*, but they are unfortunately accompanied by very poor illustrations of the epigyne. This article also seems to have been republished online several years later with changed authorship (see World Spider Catalog, 2023).

Castianeira indica Tikader, 1981 was transferred formally to *Oedignatha* by Sankaran, Caleb & Sebastian (2019). Those authors demonstrated that the contemporary type series only included three specimens: two females (including the holotype) and one male. Thus, ten additional paratype females mentioned in the original description are missing and their status is unknown. The holotype and paratype females were determined to be two different *Oedignatha* species (the latter conspecific with *O. scrobiculata*), and the paratype male was identified as a specimen of *Cambalida deorsa* Murthappa, Prajapati, Sankaran & Sebastian, 2016. Most importantly, Sankaran, Caleb & Sebastian (2019) concluded the holotype, the name-bearing specimen, was indeed a distinct *Oedignatha* species and transferred *C. indica* to the genus.

The newly combined *Oedignatha indica* (Tikader, 1981) thus creates a second instance of homonymy of the specific epithet *indica* in the genus *Oedignatha* in less than twenty years. However, in this instance it is *O. indica* Reddy & Patel, 1993 which is now the junior homonym. This was not noticed or discussed by Sankaran, Caleb & Sebastian (2019).

Since *O. indica* Reddy & Patel, 1993 has no junior synonyms, a replacement name is required in accordance with Article 60 of the International Code of Zoological Nomenclature (ICZN, 1999) and is newly proposed here.

Nomenclature

Oedignatha elhennawyi **nom. nov.**
Oedignatha indica Reddy & Patel, 1993: 49, figs. 8-15 (♂♀). (preoccupied name)

Etymology. The replacement name is a patronym honouring Egyptian arachnologist Hisham El-Hennawy, in recognition of his decades of work on spider faunistics, and for kindly bringing this homonymy to my attention.

Acknowledgment

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An updated checklist of the spider fauna (Arachnida: Araneae) in different districts of Kerala state of India

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Abstract

In this article, an updated checklist of spider diversity in the Kerala state of India is presented. A total of 598 species of spiders described under 260 genera belonging to 44 families are enlisted that have been described and/or recorded from all 14 districts of Kerala, India. The maximum number of species of spiders was recorded from Idukki (33 families, 155 genera, 290 species) followed by Wayanad (27 families, 146 genera, 274 species), Thrissur (28 families, 139 genera, 234 species), Palakkad (28 families, 116 genera, 218 species), Ernakulam (26 families, 109 genera, 183 species), Kannur (22 families, 105 genera, 182 species), Kasaragod (22 families, 105 genera, 182 species), Alappuzha (22 families, 95 genera, 161 species), and Thiruvananthapuram (24 families, 92 genera, 144 species) and less than 100 species of spiders in other districts. Among the families, Salticidae is the most abundant family which comprises 97 species belonging to 48 genera and is distributed in all districts of Kerala followed by Araneidae (86 species, 31 genera, all districts), Theridiidae (55 species, 25 genera, all districts), Thomisidae (47 species, 21 genera, 12 districts), Lycosidae (39 species, 12 genera, all districts), Oxyopidae (35 species, 4 genera, all districts), and Tetragnathidae (36 species, 9 genera, all districts). Representation of other families is moderate (10-22 species) to poor (1-9 species). Though, Cheiracanthiidae, Clubionidae, Corinnidae, Hersiliidae, Linyphiidae, Sparassidae, and Uloboridae are poorly represented in Kerala but are distributed in 12-14 districts of Kerala. Some of the national parks and wildlife sanctuaries, forest areas, agricultural fields, human dwellings etc. of Kerala still await intensive and extensive survey programmes to record a near complete spider fauna. Several spiders were identified only upto generic level, and are excluded from this checklist.

Keywords: Spider fauna, Araneae, checklist, Kerala, Western Ghat, India.

Introduction

The spiders (Arthropoda: Chelicerata: Arachnida) are members of the arachnid order Araneae. They are cosmopolitan except Antarctica. Almost all spiders are predators mostly of insects in terrestrial ecosystems throughout the world. The order Araneae ranks sixth [51,170 species in 4,324 genera belonging to 132 families, (World Spider Catalog, 2023)] after the five largest orders of insects (Coleoptera, Lepidoptera, Hymenoptera, Diptera, Hemiptera) in terms of species diversity. Despite recent research on the faunistic biodiversity of spiders in India, their recorded number is less as compared to other parts of the world. For example, Canada is known for its cold climate and relatively limited biodiversity, but 1,477 spider species belonging to 45 families have been recorded (Bennett *et al.,* 2019) while India having a very rich biodiversity and a tropical climate with biodiversity hotspots, has the best account so far of only 2,344 species described under 596 genera comprising 65 families (Singh & Singh, 2021a), however, Caleb & Sankaran (2023) listed only 1,947 species belonging to 493 genera in 61 families.

Araneological studies in Kerala date back to Simon (1880) with the record of *Selenops radiatus* Latreille, 1819 in Malabar coast of Kerala. Later, Pocock (1899, 1900, 1901) described/recorded 16 species, Hirst (1909) described a theraphosid spider *Annandaliella travancorica* Hirst, 1909 and Strand (1912) described two lynx spiders (*Oxyopes armatipalpis* Strand, 1912; *Oxyopes travancoricola* Strand, 1912) from Thiruvananthapuram. Thereafter, Gravely (1915, 1921, 1924, 1931) and Sherriffs (1919, 1931) described/recorded 34 species of spiders from different districts of Kerala. Among the Indian authors during post–independent period, Subramanian (1955) was the first to record six orb-weaver spiders from Ernakulam and Thiruvananthapuram district of Kerala. Later on, in the subsequent years, at least 32 species of spiders were described and/or recorded from different districts of Kerala (Tikader, 1966, 1971; Bradoo, 1979; Tikader & Malhotra, 1980; Biswas, 1984; Gajbe, 1988, 1999; Sethi & Tikader, 1988; Majumder & Tikader, 1991; Baehr & Baehr, 1993; Cheeran & Nagaraj, 1997; Joseph *et al.,* 1998). In the current century, several workers have surveyed different locations, vegetable fields, agricultural crops, parks, sanctuaries etc. in several districts of Kerala and described and/or recorded hundreds of the spider species as listed below.

Species inventory is one of the prime requirements for setting up biodiversity conservation action plan for any given region. The conservation status of 99.5% of the spider species has not yet been appraised by the IUCN globally (Seppälä *et al.*, 2018). The perusal of literature demonstrates that the available information on the spiders of Kerala is scattered in spite of all of the districts have been surveyed for faunal distribution of spiders. Till to date, no checklist of spider fauna of Kerala exists. The objective of this study is to bring together an authoritative updated checklist of all spiders described and/or recorded in the southwest Indian state, Kerala.

Material and Methods

Study area

The state Kerala (latitude: 8°18’ to 12°48’N; longitude: 74°52’ to 77°22’E) is lodged between the Lakshadweep Sea and the Western Ghats having 590 km of coast. Kerala is divided geographically into three climatically distinct regions: (i) the eastern highlands, (ii) the central mid-lands with rugged and cool mountainous terrain and rolling hills, and (iii) the western lowlands, the coastal plains. Kerala is inundated by 44 rivers, out of which 3 are east-flowing while others are west-flowing. The eastern region of

Kerala consists of high mountains, gorges and deep-cut valleys immediately west of the Western Ghats' rain shadow. The Western Ghats form a wall of mountains interrupted only near Palakkad where the Palakkad Gap breaks (Nair, 2004). UNESCO World Heritage Sites has recognised Western Ghats mountain chain as one of the world's eight "hottest hotspots" of biological diversity. The western coastal belt of Kerala is relatively flatter than the eastern region, and is criss-crossed by a network of interconnected brackish canals, lakes, estuaries and rivers known as the Kerala Backwaters. Kerala has a humid tropical rainforest climate influenced by the seasonal heavy rains of the southwest summer monsoon and northeast winter monsoon, with an average annual rainfall over 2,900 mm. The state of Kerala is divided into 14 districts for the administration. These districts are usually grouped into three parts on the basis of history, culture and geographical similarities, such as: (i) Malabar, north Kerala - Kannur, Kasaragod, Kozhikode, Malappuram and Wayanad, (ii) Kochi region, central Kerala - Eranakulam, Palakkad and Thrissur, and (iii) Travancore, south Kerala - Alappuzha, Idukki, Kollam, Kottayam, Pathanamthitta and Thiruvananthapuram districts.

The present checklist is based on the published literature on the spiders described and/or recorded from Kerala, e.g. books, book chapters, journals, proceedings of conferences, Records and Fauna Series of the Zoological Survey of India, Kolkata, few authentic theses, websites (only research grade contents), and World Spider Catalog (2023) up to June, 16, 2023. In the present checklist, attempts have been made to correct the errors in the scientific names of the spiders following World Spider Catalog (2023). The species identified only up to the generic level and apparently misidentified species are excluded from the state list. For synonymy and endemism of valid spider species, World Spider Catalog (2023) should be consulted. In few cases, the locations of spider species are corrected, particularly of those spiders that were described/recorded during the British period and even after the independence of India (1947) till the formation of Kerala in November 1, 1956. Multiple references per record are avoided.

Results and Discussion

The total number of species recorded in different districts of Kerala are displayed in Fig. (1) and listed familywise, alphabetical-wise and districtwise.

In the present compilation, a total of 598 species of spiders described under 260 genera belonging to 44 families were recorded in all 14 districts of Kerala (Table 1) out of 1,947 species belonging to 493 genera in 61 families recorded in India (Calab & Sankaran, 2023). The biodiversity of spiders is more in 9 districts of the state (Alappuzha, Ernakulam, Idukki, Kannur, Kasaragod, Palakkad, Thiruvananthapuram, Thrissur, Wayanad) where more than 140 species were recorded.

Table 1. Number of species of spiders in different districts of Kerala.

District	Families	Genera	Species	District	Families	Genera	Species
Alappuzha	22	95	161	Kozhikode	16	53	82
Ernakulam	26	109	183	Malappuram	20	71	99
Idukki	33	155	290	Palakkad	28	116	218
Kannur	22	105	182	Pathanamthitta	17	38	42
Kasaragod	22	105	182	Thiruvananthapuram	24	92	144
Kollam	17	37	38	Thrissur	28	139	234
Kottayam	18	55	72	Wayanad	27	146	274
				Total	44	260	598

The maximum number of species of spiders was recorded from Idukki (33 families, 155 genera, 290 species) followed by Wayanad (27 families, 146 genera, 274 species), Thrissur (28 families, 139 genera, 234 species), Palakkad (28 families, 116 genera, 218 species), Ernakulam (26 families, 109 genera, 183 species), Kannur and Kasaragod (22 families, 105 genera, 182 species), Alappuzha (22 families, 95 genera, 161 species), and Thiruvananthapuram (24 families, 92 genera, 144 species) and less than 100 species of spiders in other districts (Table 1, Fig. 1). Some of the national parks and wildlife sanctuaries, forest areas, agricultural fields, human dwellings etc. of Kerala still await intensive and extensive survey programmes to record a near complete spider fauna. Several spiders were identified only upto generic level, and are excluded from this checklist. It is possible that some of them may be new to science.

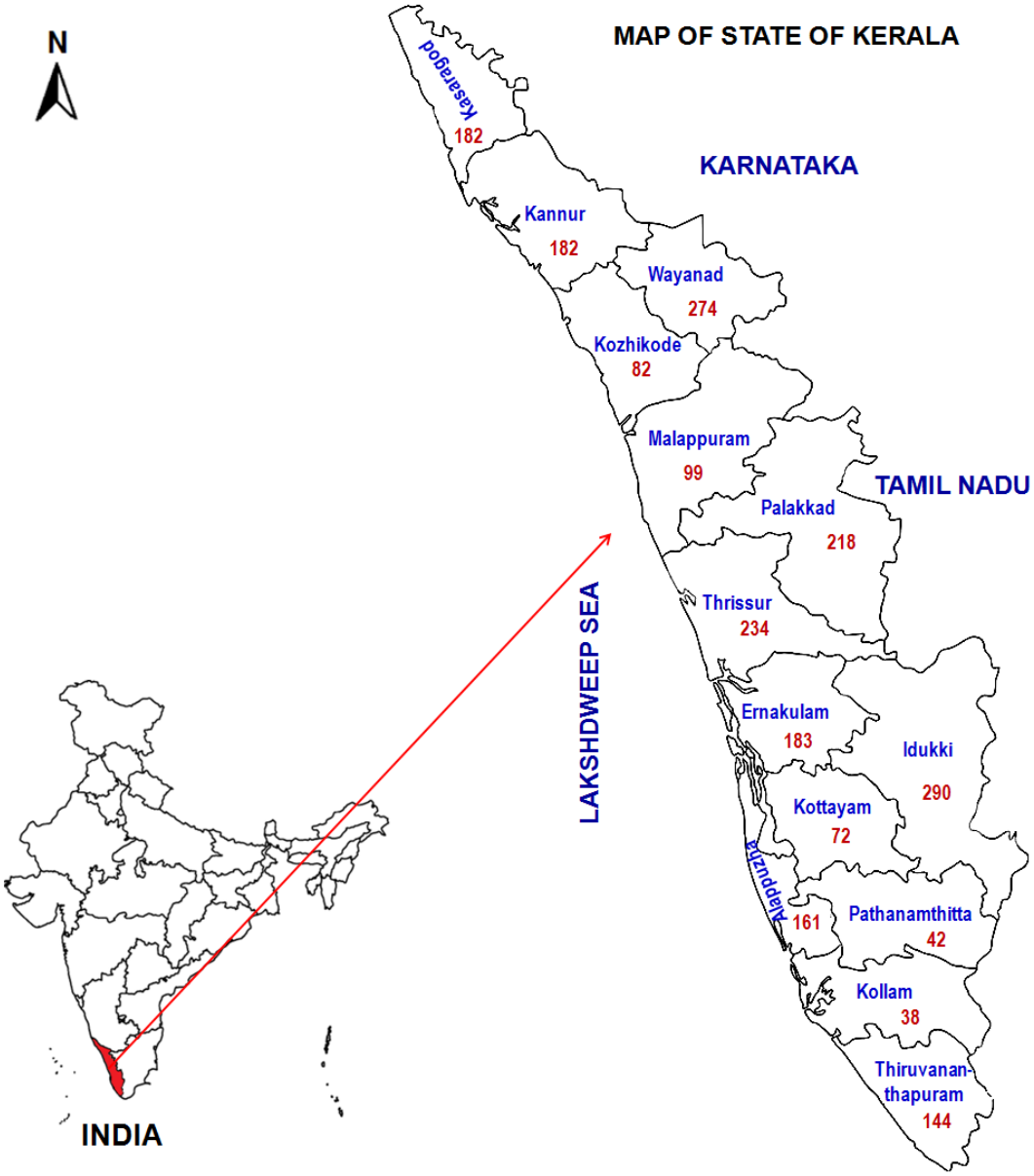

Fig. 1. Number of spider species recorded and/or described from different districts of Kerala state of India.

Table 2. Number of genera and species of different families of spiders described and/or recorded in Kerala and India.

Families	Recorded in Kerala		Recorded in India *	
	Genus	Species	Genus	Species
1. Agelenidae	1	1	6	15
2. Araneidae	31	86	38	196
3. Barychelidae	3	3	5	15
4. Cheiracanthiidae	1	8	2	31
5. Cithaeronidae	1	1	2	4
6. Clubionidae	2	10	3	30
7. Corinnidae	5	7	7	16
8. Ctenidae	3	6	5	21
9. Dictynidae	1	1	5	11
10. Eresidae	1	1	1	5
11. Filistatidae	1	1	5	10
12. Gnaphosidae	11	16	26	139
13. Hahniidae	2	3	3	4
14. Halonoproctidae	1	1	2	8
15. Hersiliidae	2	6	3	12
16. Idiopidae	1	1	3	27
17. Linyphiidae	10	21	31	66
18. Liocranidae	5	11	5	30
19. Lycosidae	12	39	21	125
20. Miturgidae	1	1	1	1
21. Oecobiidae	1	1	2	6
22. Oonopidae	2	4	13	46
23. Oxyopidae	4	35	4	88
24. Palpimanidae	2	3	3	4
25. Philodromidae	5	8	7	44
26. Pholcidae	6	7	7	16
27. Pimoidae	1	1	1	7
28. Pisauridae	7	8	9	19
29. Prodidomidae	1	1	2	9
30. Psechridae	2	3	2	6
31. Salticidae	48	97	104	307
32. Scytodidae	1	4	2	11
33. Selenopidae	1	1	3	8
34. Sicariidae	1	1	1	1
35. Sparassidae	8	21	12	88
36. Stenochilidae	1	1	1	2
37. Tetrablemmidae	2	2	5	10
38. Tetragnathidae	9	36	11	52
39. Theraphosidae	7	17	11	59
40. Theridiidae	25	55	33	92
41. Thomisidae	21	47	41	185
42. Trachelidae	1	2	3	6
43. Uloboridae	4	10	5	27
44. Zodariidae	5	9	11	31
Total	260	598	467	1890

* after Caleb & Sankaran (2023)

Among the families, Salticidae is the most abundant family which comprises 97 species belonging to 48 genera and is distributed in all districts of Kerala followed by Araneidae (86 species, 31 genera, all districts), Theridiidae (55 species, 25 genera, all districts), Thomisidae (47 species, 21 genera, 12 districts), Lycosidae (39 species, 12 genera, all districts), Oxyopidae (35 species, 4 genera, all districts), and Tetragnathidae (36 species, 9 genera, all districts). Representation of other families is moderate (10-22 species) to poor (1-9 species). Though, Cheiracanthiidae, Clubionidae, Corinnidae, Hersiliidae, Linyphiidae, Sparassidae, and Uloboridae are poorly represented in Kerala but are distributed in 12-14 districts of Kerala (Table 2).

Table 3. Number of families, genera, and species of spider fauna in different states based on published literature.

States/Union Territories	Families	Genera	Species	Reference
Andaman & Nicobar	28	93	141	Singh & Singh, 2022b
Andhra Pradesh	33	105	197	Singh & Sharma, 2022a
Arunchal Pradesh	20	56	108	Singh & Singh, 2021b
Assam	27	136	266	Singh & Singh, 2021b
Bihar	21	55	93	Singh & Singh, 2021c
Chhattisgarh	21	68	179	Singh & Singh BB, 2021
Goa	23	128	173	Singh & Singh BB, 2022
Gujarat	41	199	533	Singh *et al.*, 2023a
Haryana	16	39	59	Singh & Singh, 2021d
Himachal Pradesh	22	58	90	Singh & Singh, 2021d
Jammu & Kashmir	31	148	252	Singh *et al.*, 2023b
Jharkhand	13	27	35	Singh & Singh, 2021c
Karnataka	39	194	393	Singh, 2022a
Kerala	44	260	598	Present study
Ladakh	14	34	42	Singh *et al.*, 2023b
Lakshadweep	10	19	20	Singh & Singh, 2022b
Madhya Pradesh	30	136	336	Singh & Sharma, 2022b
Maharashtra	44	247	785	Singh, 2022b
Manipur	25	88	142	Singh & Singh, 2021b
Meghalaya	29	119	225	Singh & Singh, 2021b
Mizoram	18	48	70	Singh & Singh, 2021b
Nagaland	5	6	7	Singh & Singh, 2021b
Odisha	42	161	264	Singh, 2022c
Puducherry	26	76	100	Singh & Singh, 2022b
Punjab	19	64	109	Singh & Singh, 2021d
Rajasthan	25	89	172	Singh & Singh, 2022c
Sikkim	21	55	89	Singh & Singh, 2021b
Tamil Nadu	46	259	548	Singh, 2023a
Telangana	21	71	125	Singh & Sharma, 2022c
Tripura	16	53	79	Singh & Singh, 2021b
Uttar Pradesh	36	146	284	Singh & Singh, 2022a
Uttarakhand	45	202	373	Singh & Singh, 2022a
West Bengal	39	245	567	Singh, 2023b

The spider fauna of Kerala overlaps the fauna of neighbouring states, such as Karnataka (Singh, 2022a) and Tamil Nadu (Singh, 2023a), but several species are endemic to Kerala. A perusal of checklists of the spider fauna of different states (Table 3) reveals

that the biodiversity of spiders in Kerala is comparatively high. It ranks first in India in the number of genera; second in the number of species after Maharashtra: 785 species (Singh, 2022b) and third in the number of families after Tamil Nadu (46 families, Singh, 2023a) and Uttarakhand: 45 families (Singh & Singh, 2022a).

List of species of spiders (family-wise, species-wise, district-wise) described and/or recorded from different districts of Kerala are listed below:

I. Family Agelenidae

1. ***Agelena inda*** Simon, 1897
- Idukki (Adarsh & Nameer, 2016)

II. Family Araneidae

1. ***Acusilas coccineus*** Simon, 1895
- Ernakulam, Idukki, Kollam, Kottayam, Thiruvananthapuram (Sankaran & Sebastian, 2018a)
- Wayanad (Shabnam *et al.*, 2021)

2. ***Anepsion maritatum*** (O. Pickard-Cambridge, 1877)
- Alappuzha, Ernakulam, Thrissur (Malamel *et al.*, 2015a)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kozhikode (Vineetha & George, 2021)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Shihabudeen *et al.*, 2022)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Asima *et al.*, 2020)

3. ***Arachnura angura*** Tikader, 1970
- Ernakulam (Sebastian *et al.*, 2011)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Thrissur (Adarsh & Nameer, 2015)
- Wayanad (Sunil Jose, 2010)

4. ***Arachnura melanura*** Simon, 1867
- Thiruvananthapuram (Sen & Sureshan, 2020)

5. ***Araneus bilunifer*** Pocock, 1900
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Sudhikumar *et al.*, 2005)
- Palakkad (Sebastian *et al.*, 2011)
- Thrissur (Adarsh & Nameer, 2015)
- Wayanad (Joseph *et al.*, 2017)

6. ***Araneus diadematus*** Clerck, 1757
- Alappuzha (Malamel & Sudhikumar, 2020)

7. ***Araneus ellipticus*** (Tikader & Bal, 1981)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sivaraman & Joseph, 2016)
- Idukki (Sebastian *et al.*, 2005a)
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad, Thrissur (Sebastian *et al.*, 2011)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Wayanad (Dhali & Sureshan, 2016)

8. ***Araneus tubabdominus*** Zhu & Zhang, 1993
- Kannur (Sen *et al.*, 2021)

9. ***Araniella nympha*** (Simon, 1889)
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Sundararaj, 2008)
- Kozhikode (Vineetha & George, 2021)
- Malappuram (Sivaperuman *et al.*, 2002)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

10. ***Araneus viridiventris*** Yaginuma, 1969
- Kasaragod, Thrissur (Shilpa *et al.*, 2023)

11. ***Argiope aemula*** (Walckenaer, 1841)
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Sebastian *et al.*, 2005a)
- Kannur (Jose *et al.*, 2018)
- Kasaragod (Sumesh & Sudhikumar, 2020)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Sidheek, 2021)

- Palakkad (Shihabudeen *et al.*, 2022)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Adarsh & Nameer, 2015)
- Wayanad (Joseph *et al.*, 2017)

12. ***Argiope anasuja*** Thorell, 1887
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam, Malappuram, Thrissur (Sivaperuman *et al.*, 2002)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Jose *et al.*, 2007)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Wayanad (Sunil Jose, 2010)

13. ***Argiope catenulata*** (Doleschall 1859)
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Palakkad (Sebastian *et al.*, 2011)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Dhali & Sureshan, 2016)

14. ***Argiope pulchella*** Thorell, 1881
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Mathew *et al.*, 2005)
- Kannur (Jose *et al.*, 2018)
- Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Adarsh & Nameer, 2015)
- Wayanad (Rajeevan *et al.*, 2019)

15. ***Bijoaraneus mitificus*** (Simon, 1886)
- Ernakulam (Sebastian *et al.*, 2005b)
- Kannur (Vineetha & George, 2021)
- Kasaragod (Jose *et al.*, 2018)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Shabnam *et al.*, 2021)

16. ***Chorizopes anjanes*** Tikader, 1965
- Alappuzha (Malamel & Sudhikumar, 2020)

17. ***Chorizopes calciope*** (Simon, 1895)
- Palakkad (Patel, 2003)

18. ***Chorizopes quadrituberculata*** Roy, Sen, Saha & Raychaudhuri, 2014
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

19. ***Cyclosa argenteoalba*** Bösenberg & Strand, 1906
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

20. ***Cyclosa bifida*** (Doleschall, 1859)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2011)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Vineetha & George, 2021)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

21. ***Cyclosa confraga*** (Thorell, 1892)
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Palakkad (Sunil Jose *et al.*, 2008)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

22. ***Cyclosa hexatuberculata*** Tikader, 1982
- Ernakulam (Sebastian *et al.*, 2011)
- Idukki (Sudhikumar *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Dhanya *et al.*, 2022)
- Wayanad (Sunil Jose, 2010)

23. ***Cyclosa insulana*** (Costa, 1834)
- Ernakulam, Thrissur (Sebastian *et al.*, 2011)
- Idukki (Sudhikumar *et al.*, 2005)
- Palakkad (Patel, 2003)
- Wayanad (Joseph *et al.*, 2017)

24. ***Cyclosa moonduensis*** Tikader, 1963
- Palakkad (Patel, 2003)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam, Idukki, Thrissur (Sebastian *et al.*, 2011)
- Palakkad (Patel, 2003)

25. ***Cyclosa neilensis*** Tikader, 1977
- Malappuram (Fasila & Gafoor, 2021)

26. ***Cyclosa quinqueguttata*** (Thorell, 1881)
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Sebastian *et al.*, 2005a)
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Dhanya *et al.*, 2022)
- Wayanad (Sunil Jose, 2010)

27. ***Cyclosa spirifera*** Simon, 1889
- Idukki (Adarsh & Nameer, 2016)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

28. ***Cyrtarachne inaequalis*** Thorell, 1895
- Kozhikode (Dhali *et al.*, 2019)

29. ***Cyrtarachne raniceps*** Pocock, 1900
- Thrissur (Pooja *et al.*, 2016)

30. ***Cyrtarachne Wayanadensis*** Jwala, Sen & Sureshan, 2022
- Wayanad (Jwala *et al.*, 2022)

31. ***Cyrtophora bidenta*** Tikader, 1970
- Idukki (Sudhikumar *et al.*, 2005)
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Joseph *et al.*, 2017)

32. ***Cyrtophora cicatrosa*** (Stoliczka, 1869)
- Alappuzha (Sudhikumar *et al.*, 2004)
- Idukki (Adarsh & Nameer, 2016)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Dhali & Sureshan, 2016)

33. ***Cyrtophora citricola*** (Forskål, 1775)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Mathew *et al.*, 2005)
- Kannur (Jose *et al.*, 2018)
- Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Vineetha & George, 2021)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Adarsh & Nameer, 2015)
- Wayanad (Shabnam *et al.*, 2021)

34. ***Cyrtophora feae*** (Thorell, 1887)
- Ernakulam, Idukki, Palakkad, Thrissur (Sebastian *et al.*, 2011)

35. ***Cyrtophora moluccensis*** (Doleschall, 1857)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sivaperuman *et al.*, 2002)
- Idukki, Thrissur (Sebastian *et al.*, 2011)
- Kannur (Vineetha & George, 2021)
- Kottayam (Malamel & Samson, 2014)
- Palakkad (Sivaperuman *et al.*, 2005)
- Thiruvananthapuram (Pocock, 1900; Vishnudas *et al.*, 2021)

36. ***Cyrtophora unicolor*** (Doleschall, 1857)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Thrissur (Adarsh & Nameer, 2015)

37. ***Eriovixia excelsa*** (Simon, 1889)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Mathew *et al.*, 2005)
- Kannur (Jose *et al.*, 2018)
- Kasaragod (Sumesh & Sudhikumar, 2020)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sebastian *et al.*, 2011)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Joseph *et al.*, 2017)

38. ***Eriovixia gryffindori*** Ahmed, Khalap & Sumukha, 2016
- Malappuram (Fasila & Gafoor, 2021)

39. ***Eriovixia laglaizei*** (Simon, 1877)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Adarsh & Nameer, 2015)
- Wayanad (Rajeevan *et al.*, 2019)

40. ***Eriovixia palawanensis*** (Barrion & Litsinger, 1995)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

41. ***Eriovixia patulisus*** (Barrion & Litsinger, 1995)
- Wayanad (Asalatha & Prasadan, 2019)

42. ***Eriovixia poonaensis*** (Tikader & Bal, 1981)
- Ernakulam, Idukki (Sebastian *et al.*, 2011)
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Dhanya *et al.*, 2022)
- Wayanad (Sunil Jose, 2010)

43. ***Eriovixia sakiedaorum*** Tanikawa, 1999
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Wayanad (Asalatha & Prasadan, 2019)

44. ***Gasteracantha dalyi*** Pocock, 1900
- Ernakulam, Thrissur (Sebastian *et al.*, 2011)
- Idukki (Sudhikumar *et al.*, 2005)
- Kollam (Jose *et al.*, 2007)
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

45. ***Gasteracantha geminata*** (Fabricius, 1798)
- Alappuzha (Sankaran *et al.*, 2015a)
- Ernakulam, Malappuram, Thrissur, (Sivaperuman *et al.*, 2002)
- Idukki (Joseph *et al.*, 1998)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kozhikode (Vineetha & George, 2021)
- Palakkad (Patel, 2003)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Wayanad (Rajeevan *et al.*, 2019)

46. ***Gasteracantha kuhli*** C.L. Koch, 1837
- Ernakulam, Thrissur (Sebastian *et al.*, 2011)
- Idukki (Sudhikumar *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Palakkad (Patel, 2003)
- Wayanad (Shabnam *et al.*, 2021)

47. ***Gasteracantha remifera*** Butler, 1873
- Idukki (Sudhikumar *et al.*, 2005)
- Kerala (Subramanian, 1955)
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

48. ***Gasteracantha sororna*** Butler, 1873
- Idukki (Joseph *et al.*, 1998)

49. ***Gea spinipes*** C.L. Koch, 1843
- Idukki (Mathew *et al.*, 2005)
- Thrissur (Adarsh & Nameer, 2015)

50. ***Gea subarmata*** Thorell, 1890
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Asalatha *et al.*, 2017a)

51. ***Gibbaranea bituberculata*** (Walckenaer, 1802)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki, Thrissur (Sebastian *et al.*, 2011)
- Palakkad (Patel, 2003)

52. ***Guizygiella indica*** (Tikader & Bal, 1980)
- Ernakulam (Ambily & Antony, 2016)
- Idukki, Wayanad (Joseph *et al.*, 2017)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

53. ***Guizygiella melanocrania*** (Thorell, 1887)
- Palakkad (Ranjini, 2016)

54. ***Guizygiella nadleri*** (Heimer, 1984)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

55. ***Herennia multipuncta*** (Doleschall, 1859)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2011)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Palakkad (Patel, 2003; Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Pocock, 1900)
- Thrissur (Adarsh & Nameer, 2015)
- Wayanad (Rajeevan *et al.*, 2019)

56. ***Larinia jaysankari*** Biswas, 1984
- Alappuzha (Biswas, 1984)

57. ***Larinia phthisica*** (L. Koch, 1871)
- Idukki (Joseph *et al.*, 2017)
- Wayanad (Dhali & Sureshan, 2016)

58. ***Macracantha arcuata*** (Fabricius, 1793)
- Kerala (Subramanian, 1955)

59. ***Macracantha hasselti*** (C.L. Koch, 1837)
- Idukki (Mathew *et al.*, 2005)
- Kozhikode (Vineetha & George, 2021)
- Palakkad (Patel, 2003)
- Thrissur (Adarsh & Nameer, 2015)
- Wayanad (Sunil Jose, 2010)

60. ***Neogea nocticolor*** (Thorell, 1887)
- Idukki, Wayanad (Joseph *et al.*, 2017)

61. ***Neoscona adianta*** (Walckenaer, 1802)
- Wayanad (Rajeevan *et al.*, 2019)

62. ***Neoscona bengalensis*** Tikader & Bal, 1981
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam, Palakkad (Sebastian *et al.*, 2011)
- Idukki (Sebastian *et al.*, 2005a)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Radhakrishnan *et al.*, 2006)
- Malappuram (Fasila & Gafoor, 2021)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Wayanad (Rajeevan *et al.*, 2019)

63. ***Neoscona crucifera*** (Lucas, 1838)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Wayanad (Rajeevan *et al.*, 2019)

64. ***Neoscona inusta*** (L. Koch, 1871)
- Alappuzha (Mathew *et al.*, 2014; Sudhikumar *et al.*, 2004)
- Thrissur (Prasad *et al.*, 2022)

65. ***Neoscona molemensis*** Tikader & Bal, 1981
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam, Idukki (Sebastian *et al.*, 2005a)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Palakkad (Sebastian *et al.*, 2011)
- Thrissur (Smitha & Sudhikumar, 2020)

66. ***Neoscona mukerjei*** Tikader, 1980
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Patel, 2003)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Asalatha *et al.*, 2017a)

67. ***Neoscona nautica*** (L. Koch, 1875)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam, Thrissur (Sebastian *et al.*, 2011)
- Idukki (Mathew *et al.*, 2005)
- Kannur (Vineetha & George, 2021)
- Kasaragod (Jose *et al.*, 2018)
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

68. ***Neoscona parambikulamensis*** Patel, 2003
- Palakkad (Patel, 2003)

69. ***Neoscona pavida*** (Simon, 1906)
- Alappuzha (Sudhikumar & Sebastian, 2005)
- Ernakulam, Idukki, Thrissur (Sebastian *et al.*, 2011)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

70. ***Neoscona theisi*** (Walckenaer, 1841)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam, Idukki, Palakkad, Thrissur (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Malappuram (Fasila & Gafoor, 2021)
- Wayanad (Dhali & Sureshan, 2016)

71. ***Neoscona usbonga*** Barrion & Litsinger, 1995
- Kasaragod (Asalatha & Prasadan, 2020)

72. ***Neoscona vigilans*** (Blackwall, 1865)
- Thrissur (Sebastian *et al.*, 2011)
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Sebastian *et al.*, 2005a)
- Kannur (Radhakrishnan *et al.*, 2006)
- Kasaragod (Jose *et al.*, 2018)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Wayanad (Sunil Jose, 2010)

73. ***Neoscona yptinika*** Barrion & Litsinger, 1995
- Wayanad (Dhali & Sureshan, 2016)

74. ***Nephila pilipes*** (Fabricius, 1793)
- Ernakulam (Sebastian *et al.*, 2011)
- Idukki (Joseph *et al.*, 1998)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Jose *et al.*, 2007)
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Pocock, 1900)
- Thrissur (Sivaperuman *et al.*, 2002)
- Wayanad (Asalatha *et al.*, 2017a)

75. ***Nephilengys malabarensis*** (Walckenaer, 1841)
- Ernakulam, Idukki, Thrissur (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Jose *et al.*, 2007)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Pocock, 1900)

76. ***Ordgarius hobsoni*** (O. Pickard-Cambridge, 1877)
- Ernakulam, Thiruvananthapuram (Subramanian, 1955)
- Idukki (Joseph *et al.*, 1998)

77. ***Ordgarius sexspinosus*** (Thorell, 1894)
- Ernakulam, Thiruvananthapuram (Subramanian, 1955)

78. ***Paraplectana gravelyi*** (Tikader, 1961)
- Idukki (Adarsh & Nameer, 2016)

79. ***Parawixia dehaani*** (Doleschall, 1859)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Idukki (Mathew *et al.*, 2005)

- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Thrissur (Adarsh & Nameer, 2015)
- Wayanad (Sunil Jose, 2010)

80. *Pasilobus kotigeharus* Tikader, 1963
- Wayanad (Asalatha *et al.*, 2017a)

81. *Pasilobus sahyadriensis* Jwala, Sen & Sureshan, 2022
- Wayanad (Jwala *et al.*, 2022)

82. *Plebs himalayaensis* (Tikader, 1975)
- Ernakulam (Ambily & Antony, 2016)
- Idukki (Sudhikumar *et al.*, 2005)

83. *Plebs mitratus* (Simon, 1895)
- Idukki, Wayanad (Paul *et al.*, 2016)

84. *Porcataraneus bengalensis* (Tikader, 1975)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Joseph *et al.*, 2017)

85. *Thelacantha brevispina* (Doleschall, 1857)
- Kannur (Vineetha & George, 2021)
- Palakkad (Patel, 2003)
- Thrissur (Dhanya *et al.*, 2022)

86. *Zilla globosa* Saha & Raychaudhuri, 2004
- Idukki, Wayanad (Joseph *et al.*, 2017)

III. Fami ly Barychelidae

1. *Sason robustum* (O. Pickard-Cambridge, 1883)
- Kollam (Sunil Jose & Sebastian, 2008)
- Thiruvananthapuram (Siliwal *et al.*, 2011)

2. *Sasonichus sullivani* Pocock, 1900
- Thiruvananthapuram (Pocock, 1900)

3. *Tigidia fasciata* Mirza, 2023
- Thiruvananthapuram (Mirza, 2023)

IV. Family Cheiracanthiidae

1. *Cheiracanthium conflexum* Simon, 1906
- Idukki, Wayanad (Joseph *et al.*, 2017)

2. *Cheiracanthium danieli* Tikader, 1975
- Alappuzha (Malamel & Sudhikumar, 2020)
- Idukki (Adarsh & Nameer, 2016)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Shihabudeen *et al.*, 2022)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Pooja *et al.*, 2016)

3. *Cheiracanthium indicum* O. Pickard-Cambridge, 1874
- Idukki, Wayanad (Joseph *et al.*, 2017)

4. *Cheiracanthium melanostomum* (Thorell, 1895)
- Alappuzha (Mathew *et al.*, 2014)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Shihabudeen *et al.*, 2022)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Rajeevan *et al.*, 2019)

5. *Cheiracanthium murinum* (Thorell, 1895)
- Kozhikode (Dhali *et al.*, 2019)
- Wayanad (Rajeevan *et al.*, 2019)

6. *Cheiracanthium punctorium* (Villers, 1789)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

7. *Cheiracanthium tanmoyi* Biswas & Roy, 2005
- Alappuzha (Biswas & Roy, 2005a)

8. *Cheiracanthium triviale* (Thorell, 1895)
- Idukki (Mathew *et al.*, 2005)
- Wayanad (Dhali & Sureshan, 2016)

V. Family Cithaeronidae

1. *Inthaeron longipes* **(**Gravely, 1931**)**
- Palakkad (Sankaran *et al.*, 2020a)

VI. Family Clubionidae

1. *Clubiona acanthocnemis* Simon, 1906
- Idukki, Wayanad (Joseph *et al.*, 2017)

2. *Clubiona analis* Thorell, 1895
- Idukki, Wayanad (Joseph *et al.*, 2017)

3. *Clubiona bengalensis* Biswas, 1984
- Idukki, Wayanad (Joseph *et al.*, 2017)

4. *Clubiona bilobata* Dhali, Roy, Saha & Raychaudhuri, 2016
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

5. *Clubiona drassodes* O. Pickard-Cambridge, 1874
- Alappuzha (Mathew *et al.*, 2014)
- Ernakulam, Palakkad (Sebastian *et al.*, 2011)
- Idukki (Sebastian *et al.*, 2005a)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Malappuram (Fasila & Gafoor, 2021)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Joseph *et al.*, 2017)

6. *Clubiona hexadentata* Dhali, Roy, Saha & Raychaudhuri, 2016
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

7. *Clubiona pila* Dhali, Roy, Saha & Raychaudhuri, 2016
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

8. *Clubiona shillongensis* Majumder & Tikader, 1991
- Idukki, Wayanad (Joseph *et al.*, 2017)

9. *Clubiona tridentata* Dhali, Roy, Saha & Raychaudhuri, 2016
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

10. *Matidia incurvata* Reimoser, 1934
- Idukki (Joseph *et al.*, 2017)
- Thrissur, Wayanad (Smitha & Sudhikumar, 2020)

VII. Family Corinnidae

1. *Aetius decollatus* O. Pickard-Cambridge, 1897
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Sudhin *et al.*, 2016)

2. *Apochinomma nitidum* (Thorell, 1895)
- Kottayam, Thrissur (Sankaran, 2021)
- Wayanad (Shabnam *et al.*, 2021)

3. *Castianeira furva* Sankaran, Malamel, Joseph & Sebastian, 2015
- Ernakulam, Idukki, Kollam, Malappuram, Pathanamthitta, Thrissur (Sankaran *et al.*, 2015b)

4. *Castianeira zetes* Simon, 1897
- Alappuzha (Sankaran *et al.*, 2018)
- Ernakulam (Sebastian *et al.*, 2011)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Malamel & Sudhikumar, 2020)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Rajeevan *et al.*, 2019)

5. *Coenoptychus pulcher* Simon, 1885
- Palakkad (Paul *et al.*, 2018)

6. *Corinnomma comulatum* Thorell, 1891
- Thrissur (Ramanujam *et al.*, 2015)

7. *Corinnomma severum* (Thorell, 1877)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Malappuram (Sankaran, 2021)

VIII. Family Ctenidae

1. *Acantheis indicus* Gravely, 1931
- Idukki, Wayanad (Joseph *et al.*, 2017)

- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Gravely, 1931)

2. *Africactenus unumus* Sankaran & Sebastian, 2018
- Kottayam, Pathanamthitta (Sankaran & Sebastian, 2018b)

3. *Bowie cochinensis* (Gravely, 1931**)**
- Ernakulam, Palakkad, Thrissur (Gravely, 1931)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam, Malappuram (Sankaran & Sebastian, 2018b)
- Kozhikode (Dhali *et al.*, 2019)
- Wayanad (Rajeevan *et al.*, 2019)

4. *Bowie heroes* Jäger, 2022
- Thiruvananthapuram (Jäger, 2022)

5. *Bowie indicus* (Gravely, 1931**)**
- Ernakulam (Gravely, 1931)
- Idukki (Karthika & Sunil Jose, 2020)
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad, Thiruvananthapuram, Thrissur (Sankaran & Sebastian, 2018b)
- Wayanad (Joseph *et al.*, 2017)

6. *Bowie sikkimensis* (Gravely, 1931)
- Kozhikode (Dhali *et al.*, 2019)

IX. Family Dictynidae

1. *Anaxibia folia* Sankaran & Sebastian, 2017
- Malappuram (Sankaran & Sebastian, 2017a)

X. Family Eresidae

1. *Stegodyphus sarasinorum* Karsch, 1892
- Idukki (Sebastian *et al.*, 2005a)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam, Kozhikode, Palakkad, Thrissur (Drisya-Mohan & Sudhikumar, 2022)
- Thiruvananthapuram (Asima *et al.*, 2020)

XI. Family Filistatidae

1. *Zaitunia rufa* (Caporiacco, 1934)
- Idukki (Adarsh & Nameer, 2016)

XII. Family Gnaphosidae

1. *Callilepis chakanensis* Tikader, 1982
- Thrissur (Ramanujam *et al.*, 2015)

2. *Drassodes astrologus* (O. Pickard-Cambridge, 1874)
- Idukki, Wayanad (Joseph *et al.*, 2017)

3. *Drassodes carinivulvus* Caporiacco, 1934
- Idukki (Adarsh & Nameer, 2016)

4. *Drassodes delicatus* (Blackwall, 1867)
- Thrissur (Smitha & Sudhikumar, 2020)

5. *Drassodes lapidosus* (Walckenaer, 1802)
- Palakkad (Sherriffs, 1919)

6. *Gaviphosa kera* Sankaran, 2021
- Pathanamthitta (Sankaran & Caleb, 2021)

7. *Gnaphosa kailana* Tikader, 1966
- Idukki (Adarsh & Nameer, 2016)

8. *Gnaphosa rohtakensis* Gajbe, 1992
- Thrissur (Smitha & Sudhikumar, 2020)

9. *Hitobia procula* Sankaran & Sebastian, 2018
- Thrissur (Sankaran & Sebastian, 2018c)

10. *Marinarozelotes jaxartensis* (Kroneberg, 1875)
- Ernakulam (Gajbe, 1988)

11. *Poecilochroa barmani* Tikader, 1982
- Idukki (Adarsh & Nameer, 2016)

12. *Scotophaeus blackwalli* (Thorell, 1871)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

13. *Scotophaeus merkaricola* Strand, 1907
- Idukki, Wayanad (Joseph *et al.*, 2017)

14. *Synaphosus iunctus* Sankaran & Sebastian, 2018
- Thrissur (Sankaran & Sebastian, 2018c)

15. *Urozelotes patulusus* Sankaran & Sebastian, 2018

- Ernakulam (Sankaran & Sebastian, 2018c)

16. ***Zelotes ashae*** Tikader & Gajbe, 1976
- Idukki (Adarsh & Nameer, 2016)
- Malappuram (Fasila & Gafoor, 2021)
- Thiruvananthapuram (Asima *et al.*, 2020)

XIII. Family Hahniidae

1. ***Hahnia mridulae*** Tikader, 1970
- Ernakulam (Ambily & Antony, 2016)
- Idukki, Wayanad (Joseph *et al.*, 2017)
- Thrissur (Prasad *et al.*, 2022)

2. ***Hahnia yakouensis*** Chen, Yan & Yin, 2009
- Wayanad (Asalatha *et al.*, 2017a)

3. ***Scotospilus maindroni*** (Simon, 1906)
- Idukki, Wayanad (Joseph *et al.*, 2017)

XIV. Family Halonoproctidae

1. ***Conothele chinnarensis*** Sunil Jose, 2021
- Idukki (Sunil Jose, 2021a)

XV. Family Hersiliidae

1. ***Hersilia pectinata*** Thorell, 1895
- Idukki (Joseph *et al.*, 1998)

2. ***Hersilia savignyi*** Lucas, 1836
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Jose *et al.*, 2007)
- Kottayam (Malamel & Samson, 2014)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Patel, 2003)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

3. ***Hersilia striata*** Wang & Yin, 1985
- Wayanad (Rajeevan *et al.*, 2019)

4. ***Hersilia sumatrana*** (Thorell, 1890)
- Idukki, Wayanad (Joseph *et al.*, 2017)
- Malappuram (Fasila & Gafoor, 2021)

5. ***Hersilia tibialis*** M. Baehr & B. Baehr, 1993
- Thiruvananthapuram (Baehr & Baehr, 1993)

6. ***Murricia triangularis*** M. Baehr & B. Baehr, 1993
- Wayanad (Rajeevan *et al.*, 2019)

XVI. Family Idiopidae

1. ***Heligmomerus maximus*** Sanap & Mirza, 2015
- Thiruvananthapuram (Sanap & Mirza, 2015)

XVII. Family Linyphiidae

1. ***Atypena adelinae*** Barrion & Litsinger, 1995
- Alappuzha (Sudhikumar *et al.*, 2004)
- Idukki (Joseph *et al.*, 2017)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Wayanad (Dhali & Sureshan, 2016)

2. ***Atypena thailandica*** Barrion & Litsinger, 1995
- Alappuzha (Sudhikumar *et al.*, 2004)

3. ***Caviphantes pseudosaxetorum*** Wunderlich, 1979
- Idukki (Tanasevitch, 2011)

4. ***Erigone bifurca*** Locket, 1982
- Alappuzha (Sudhikumar *et al.*, 2004)

5. ***Gongylidioides keralaensis*** Tanasevitch, 2011
- Idukki (Tanasevitch, 2011)

6. ***Lepthyphantes lingsoka*** Tikader, 1970
- Wayanad (Asalatha *et al.*, 2017a)

7. ***Lepthyphantes peramplus*** (O. Pickard-Cambridge, 1885)
- Idukki (Adarsh & Nameer, 2016)
- Wayanad (Joseph *et al.*, 2017)

8. ***Lepthyphantes rudrai*** Tikader, 1970
- Kozhikode (Dhali *et al.*, 2019)

9. ***Lepthyphantes stramineus*** (O. Pickard-Cambridge, 1885)
- Idukki, Wayanad (Joseph *et al.*, 2017)

10. ***Nasoona crucifera*** (Thorell, 1895)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Idukki (Domichan *et al.*, 2020)

11. ***Neriene hammeni*** (van Helsdingen, 1963)
- Idukki, Wayanad (Joseph *et al.*, 2017)

12. ***Neriene sundaica*** (Simon, 1905)
- Ernakulam, Idukki, Palakkad (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Dhali *et al.*, 2019)
- Thrissur (Ramanujam *et al.*, 2015)
- Wayanad (Asalatha *et al.*, 2017a)

13. ***Oedothorax cheruthoniensis*** Domichan & Sunil Jose, 2021
- Idukki, Kottayam (Domichan & Sunil Jose, 2021)

14. ***Oedothorax cunur*** Tanasevitch, 2015
- Idukki, Wayanad (Joseph *et al.*, 2017)

15. ***Oedothorax kodaikanal*** Tanasevitch, 2015
- Idukki (Joseph *et al.*, 2017)

16. ***Oedothorax retusus*** (Westring, 1851)
- Thrissur (Domichan & Sunil Jose, 2021)

17. ***Oedothorax stylus*** Tanasevitch, 2015
- Palakkad (Tanasevitch, 2015)

18. ***Oedothorax veloorensis*** Domichan & Sunil Jose, 2021
- Idukki (Domichan & Sunil Jose, 2021)

19. ***Paracymboides aduncus*** Tanasevitch, 2011
- Idukki (Tanasevitch, 2011)

20. ***Paracymboides tibialis*** Tanasevitch, 2011
- Palakkad (Tanasevitch, 2011)

21. ***Prosoponoides idukkiense*** Domichan & Sunil Jose, 2022
- Idukki (Domichan & Sunil Jose, 2022)
- Malappuram (Vishnudas & Sudhikumar, 2022)

XVIII. Family Liocranidae

1. ***Inthaeron longipes*** Gravely, 1931
- Palakkad (Gravely, 1931)

2. ***Koppe fusca*** Sankaran, 2022
- Thrissur (Sankaran, 2022a)

3. ***Oedignatha albofasciata*** Strand, 1907
- Idukki, Wayanad (Joseph *et al.*, 2017)

4. ***Oedignatha binoyii*** Reddy & Patel, 1993
- Alappuzha (Malamel & Sudhikumar, 2020)

5. ***Oedignatha carli*** Reimoser, 1934
- Idukki (Sudhikumar *et al.*, 2005)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Adarsh & Nameer, 2015)

6. ***Oedignatha microscutata*** Reimoser, 1934
- Palakkad (Sunil Jose *et al.*, 2008)

7. ***Oedignatha scrobiculata*** Thorell, 1881
- Alappuzha (Malamel & Sudhikumar, 2020)
- Idukki, Wayanad (Joseph *et al.*, 2017)
- Thiruvananthapuram (Asima *et al.*, 2020)

8. ***Paratus indicus*** Marusik, Zheng & Li, 2008
- Idukki, Wayanad (Joseph *et al.*, 2017)

9. ***Paratus perus*** Sankaran, Malamel, Joseph & Sebastian, 2017
- Ernakulam, Kottayam, Thiruvananthapuram (Sankaran *et al.*, 2017a)

10. ***Sphingius barkudensis*** Gravely, 1931
- Ernakulam, Thrissur (Sankaran *et al.*, 2020a)

11. ***Sphingius bilineatus*** Simon, 1906
- Palakkad (Gravely, 1931)

XIX. Family Lycosidae

1. ***Arctosa khudiensis*** (Sinha, 1951)
- Alappuzha (Mathew *et al.*, 2014)

2. ***Crocodilosa leucostigma*** (Simon, 1885)
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

3. ***Draposa amkhasensis*** (Tikader & Malhotra, 1976)
- Alappuzha (Sudhikumar, 2007)

- Ernakulam, Idukki, Palakkad, Thrissur (Sebastian *et al.*, 2011)
- Thiruvananthapuram (Joseph & Premila, 2016)

4. ***Draposa atropalpis*** (Gravely, 1924)
- Idukki (Sudhikumar *et al.*, 2005)
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

5. ***Draposa burasantiensis*** (Tikader & Malhotra, 1976)
- Pathanamthitta (Abhijith *et al.*, 2022a)

6. ***Draposa lyrivulva*** (Bösenberg & Strand, 1906)
- Ernakulam (Tikader & Malhotra, 1980)
- Palakkad (Patel, 2003)

7. ***Draposa oakleyi*** (Gravely, 1924)
- Palakkad (Patel, 2003)

8. ***Evippa banarensis*** Tikader & Malhotra, 1980
- Idukki (Adarsh & Nameer, 2016)

9. ***Hippasa agelenoides*** (Simon, 1884)
- Ernakulam (Sivaperuman *et al.*, 2002)
- Idukki (Sudhikumar *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Vineetha & George, 2021)
- Malappuram (Sivaperuman *et al.*, 2002)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Rajeevan *et al.*, 2019)

10. ***Hippasa deserticola*** Simon, 1889
- Palakkad (Patel, 2003)
- Thrissur (Adarsh & Nameer, 2015)

11. ***Hippasa holmerae*** Thorell, 1895
- Ernakulam, Palakkad (Sebastian *et al.*, 2011)
- Idukki (Mathew *et al.*, 2005)
- Kozhikode (Dhali *et al.*, 2019)
- Thrissur (Ramanujam *et al.*, 2015)

12. ***Hippasa lycosina*** Pocock, 1900
- Ernakulam, Thrissur (Sebastian *et al.*, 2011)
- Idukki (Sudhikumar *et al.*, 2005)
- Kottayam (Tikader & Malhotra, 1980)
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

13. ***Hippasa olivacea*** (Thorell, 1887)
- Idukki (Sudhikumar *et al.*, 2005)
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

14. ***Hippasa pantherina*** Pocock, 1899
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Tikader & Malhotra, 1980)
- Idukki (Sudhikumar *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Pocock, 1899)
- Thrissur (Adarsh & Nameer, 2015; Dhanya *et al.*, 2022)
- Wayanad (Sunil Jose, 2010)

15. ***Lycosa barnesi*** Gravely, 1924
- Idukki (Adarsh & Nameer, 2016)
- Palakkad (Tikader & Malhotra, 1980)

16. ***Lycosa bistriata*** Gravely, 1924
- Idukki (Mathew *et al.*, 2005)
- Thrissur (Pooja *et al.*, 2016)

17. ***Lycosa carmichaeli*** Gravely, 1924
- Idukki, Wayanad (Sudhikumar *et al.*, 2005)

18. ***Lycosa indagatrix*** Walckenaer, 1837
- Palakkad (Sivaperuman *et al.*, 2005)

19. ***Lycosa mackenziei*** Gravely, 1924
- Alappuzha (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Palakkad (Shihabudeen *et al.*, 2022)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Prasad *et al.*, 2022)

20. ***Lycosa madani*** Pocock, 1901
- Palakkad (Patel, 2003)

21. ***Lycosa phipsoni*** Pocock, 1899
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

22. ***Lycosa poonaensis*** Tikader & Malhotra, 1980
- Alappuzha (Sudhikumar, 2007)
- Ernakulam, Idukki, Palakkad, Thrissur (Sebastian *et al.*, 2011)

23. ***Lycosa tista*** Tikader, 1970
- Alappuzha (Mathew *et al.*, 2005)
- Ernakulam, Idukki (Sebastian *et al.*, 2005a)
- Palakkad (Sebastian *et al.*, 2011)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Adarsh & Nameer, 2015)
- Wayanad (Rajeevan *et al.*, 2019)

24. ***Lysania prolixa*** Malamel, Sankaran, Joseph & Sebastian, 2015
- Ernakulam (Malamel *et al.*, 2015b)
- Idukki, Wayanad (Joseph *et al.*, 2017)

25. ***Ovia procurva*** (Yu & Song, 1988)
- Ernakulam, Kottayam (Sankaran *et al.*, 2017b)

26. ***Pardosa chambaensis*** Tikader & Malhotra, 1976
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

27. ***Pardosa kupupa*** (Tikader, 1970)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

28. ***Pardosa minuta*** Tikader & Malhotra 1976
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki, Palakkad, Thrissur (Sebastian *et al.*, 2011)

29. ***Pardosa mukundi*** Tikader & Malhotra, 1980
- Pathanamthitta (Abhijith *et al.*, 2022a)

30. ***Pardosa parathompsoni*** Wang & Zhang, 2014
- Pathanamthitta (Abhijith *et al.*, 2022b)

31. ***Pardosa pseudoannulata*** (Bösenberg & Strand, 1906)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Alappuzha (Mathew *et al.*, 2005)
- Ernakulam, Idukki (Sebastian *et al.*, 2005a)
- Kannur (Sumesh & Sudhikumar, 2020)
- Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Gravely, 1924)
- Thrissur (Adarsh & Nameer, 2015)
- Wayanad (Dhali & Sureshan, 2016)

32. ***Pardosa rhenockensis*** (Tikader, 1970)
- Wayanad (Dhali & Sureshan, 2016)

33. ***Pardosa shyamae*** (Tikader, 1970)
- Alappuzha (Sudhikumar, 2007)

34. ***Pardosa songosa*** Tikader & Malhotra, 1976
- Kozhikode (Dhali *et al.*, 2019)

35. ***Pardosa sumatrana*** (Thorell, 1890)
- Alappuzha (Mathew *et al.*, 2005)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Sebastian *et al.*, 2005a)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Abhijith *et al.*, 2021)
- Kottayam (Malamel & Samson, 2014)
- Palakkad (Sunil Jose *et al.*, 2008)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Rajeevan *et al.*, 2019)

36. ***Trochosa punctipes*** (Gravely, 1924)
- Alappuzha (Mathew *et al.*, 2005)

37. ***Wadicosa fidelis*** (O. Pickard-Cambridge, 1872**)**
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (John & Tom, 2018)
- Palakkad (Patel, 2003)
- Thrissur (Adarsh & Nameer, 2015)

38. ***Wadicosa quadrifera*** (Gravely, 1924)
- Ernakulam (Tikader & Malhotra, 1980)
- Idukki (Adarsh & Nameer, 2016)
- Malappuram (Sivaperuman *et al.*, 2002)
- Palakkad (Patel, 2003)

39. ***Zoica puellula*** (Simon, 1898)
- Alappuzha (Malamel & Sudhikumar, 2020)

- Malappuram (Sankaran & Sebastian, 2017b)

XX. Family Miturgidae

1. ***Palicanus caudatus*** Thorell, 1897
- Kollam (Sankaran & Sebastian, 2019)

XXI. Family Oecobiidae

1. ***Oecobius putus*** O. Pickard-Cambridge, 1876
- Palakkad (Patel, 2003)

XXII. Family Oonopidae

1. ***Aprusia kerala*** Grismado & Deeleman, 2011
- Idukki (Grismado *et al.*, 2011)

2. ***Brignolia cardamom*** Platnick, Dupérré, Ott & Kranz-Baltensperger, 2011
- Idukki (Platnick *et al.*, 2011)

3. ***Brignolia kaikatty*** Platnick, Dupérré, Ott & Kranz-Baltensperger, 2011
- Palakkad (Platnick *et al.*, 2011)

4. ***Brignolia kumily*** Platnick, Dupérré, Ott & Kranz-Baltensperger, 2011
- Idukki (Platnick *et al.*, 2011)

XXIII. Family Oxyopidae

1. ***Hamadruas insulana*** (Thorell, 1891)
- Kannur, Kasaragod (Jose *et al.*, 2018)

2. ***Hamadruas sikkimensis*** (Tikader, 1970)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Malappuram (Fasila & Gafoor, 2021)

3. ***Hamataliwa crista*** Amulya, Sebastian & Sudhikumar, 2022
- Alappuzha (Amulya *et al.*, 2022a)

4. ***Hamataliwa indica*** Sen & Sureshan, 2022
- Kollam, Thiruvananthapuram (Sen & Sureshan, 2022)

5. ***Hamataliwa manca*** Tang & Li, 2012
- Wayanad? (Asalatha *et al.*, 2017a)

6. ***Hamataliwa pentagona*** Tang & Li, 2012
- Kasaragod (Asalatha & Prasadan, 2020)

7. ***Hamataliwa rhombiae*** Amulya & Sudhikumar, 2022
- Thiruvananthapuram (Amulya & Sudhikumar, 2022)

8. ***Oxyopes armatipalpis*** Strand, 1912
- Thiruvananthapuram (Strand, 1912)

9. ***Oxyopes ashae*** Gajbe, 1999
- Alappuzha (Mathew *et al.*, 2005)
- Ernakulam, Idukki (Sebastian *et al.*, 2005a)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Sebastian *et al.*, 2011)
- Wayanad (Sunil Jose, 2010)

10. ***Oxyopes bharatae*** Gajbe, 1999
- Alappuzha (Sudhikumar, 2007)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Mathew *et al.*, 2005)
- Kannur (Vineetha & George, 2021)
- Palakkad (Sebastian *et al.*, 2011)
- Thrissur (Pooja *et al.*, 2016)

11. ***Oxyopes birmanicus*** Thorell, 1887
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

12. ***Oxyopes dinendrai*** Sen & Sureshan, 2021
- Wayanad (Sen & Sureshan, 2021b)

13. ***Oxyopes fabae*** Dhali, Saha & Raychaudhuri, 2015
- Thiruvananthapuram (Sen & Sureshan, 2021a)

14. ***Oxyopes hindostanicus*** Pocock, 1901
- Ernakulam, Palakkad (Sebastian *et al.*, 2011)
- Idukki (Mathew *et al.*, 2005)
- Kollam (Jose *et al.*, 2007)
- Thrissur (Pooja *et al.*, 2016; Prasad *et al.*, 2022; Sebastian *et al.*, 2011)

15. ***Oxyopes javanus*** Thorell, 1887
- Alappuzha, Idukki (Mathew *et al.*, 2005)
- Ernakulam (Ambily & Antony, 2016)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Shihabudeen *et al.*, 2022)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Dhali & Sureshan, 2016)

16. ***Oxyopes kumarae*** Biswas & Roy, 2005
- Palakkad (Biswas & Roy, 2005b)

17. ***Oxyopes lineatipes*** (C.L. Koch, 1847)
- Ernakulam, Idukki, Palakkad (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Thrissur (Prasad *et al.*, 2022)

18. ***Oxyopes pandae*** Tikader, 1969
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

19. ***Oxyopes peetham*** Amulya, Sebastian & Sudhikumar, 2022
- Malappuram (Amulya *et al.*, 2022b)

20. ***Oxyopes quadridentatus*** Thorell, 1895
- Ernakulam (Sebastian *et al.*, 2005b)
- Kottayam (Malamel & Samson, 2014)
- Malappuram (Sidheek, 2021)

21. ***Oxyopes rufisternis*** Pocock, 1901
- Idukki (Joseph *et al.*, 1998)
- Palakkad (Sivaperuman *et al.*, 2005)
- Thrissur (Sivaperuman *et al.*, 2002)

22. ***Oxyopes rukminiae*** Gajbe, 1999
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad (Gajbe, 1999)

23. ***Oxyopes sakuntalae*** Tikader, 1970
- Alappuzha (Sudhikumar, 2007)
- Ernakulam, Palakkad, Thrissur (Sebastian *et al.*, 2011)
- Idukki (Sebastian *et al.*, 2005a)

24. ***Oxyopes salticus*** Hentz, 1845
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

25. ***Oxyopes saradae*** Biswas & Roy, 2005
- Palakkad (Biswas & Roy, 2005b)

26. ***Oxyopes scapeus*** Sen & Sureshan, 2021
- Wayanad (Sen & Sureshan, 2021b)

27. ***Oxyopes shweta*** Tikader 1970
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Asalatha *et al.*, 2017a)

28. ***Oxyopes sitae*** Tikader, 1970
- Ernakulam, Idukki (Sebastian *et al.*, 2005a)

29. ***Oxyopes sunandae*** Tikader 1970
- Alappuzha (Mathew *et al.*, 2014)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Sebastian *et al.*, 2005a)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sebastian *et al.*, 2011)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Adarsh & Nameer, 2015)
- Wayanad (Rajeevan *et al.*, 2019)

30. ***Oxyopes thumboormuzhiensis*** Amulya, Honey & Sudhikumar, 2022
- Thrissur (Amulya *et al.*, 2022c)

31. ***Oxyopes travancoricola*** Strand, 1912
- Thiruvananthapuram (Strand, 1912)

32. ***Oxyopes wroughtoni*** Pocock, 1901
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad (Patel, 2003)
- Thrissur (Smitha & Sudhikumar, 2020)

33. ***Peucetia ananthakrishnani*** Murugesan, Mathew, Sudhikumar, Sunish, Biju & Sebastian, 2006

- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

34. ***Peucetia ranganathani*** Biswas & Roy, 2005
- Palakkad (Biswas & Roy, 2005b)

35. ***Peucetia viridana*** (Stoliczka, 1869)
- Alappuzha (Mathew *et al.*, 2005)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Joseph *et al.*, 1998)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Pocock, 1900)
- Thrissur (Adarsh & Nameer, 2015)
- Wayanad (Sunil Jose, 2010)

XXIV. Family Palpimanidae

1. ***Boagrius tenuisus*** Sankaran, 2022
- Thiruvananthapuram (Sankaran, 2022b)

2. ***Palpimanus gibbulus*** Dufour, 1820
- Idukki (Adarsh & Nameer, 2016)

3. ***Palpimanus vultuosus*** Simon, 1897
- Idukki, Wayanad (Joseph *et al.*, 2017)

XXV. Family Philodromidae

1. ***Lycopus bangalores*** (Tikader, 1963)
- Wayanad (Asalatha *et al.*, 2017a)

2. ***Philodromus bigibbus*** (O. Pickard-Cambridge, 1876)
- Thrissur (Smitha & Sudhikumar, 2020)

3. ***Philodromus chambaensis*** Tikader, 1980
- Idukki, Wayanad (Joseph *et al.*, 2017)

4. ***Philodromus decoratus*** Tikader, 1962
- Idukki, Wayanad (Joseph *et al.*, 2017)

5. ***Psellonus planus*** Simon, 1897
- Alappuzha, Ernakulam, Thrissur, Wayanad (Malamel *et al.*, 2019a)

6. ***Thanatus elongatus*** (Tikader, 1960)
- Ernakulam (Sebastian *et al.*, 2011)
- Idukki (Joseph *et al.*, 2017)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Sebastian *et al.*, 2011; Dhanya *et al.*, 2022)
- Wayanad (Joseph *et al.*, 2017)

7. ***Thanatus parangvulgaris*** Barrion & Litsinger, 1995
- Alappuzha (Sudhikumar, 2007)
- Ernakulam (Ambily & Antony, 2016)
- Idukki, Wayanad (Joseph *et al.*, 2017)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

8. ***Tibellus katrajghatus*** Tikader, 1962
- Idukki, Wayanad (Joseph *et al.*, 2017)

XXVI. Family Pholcidae

1. ***Artema atlanta*** Walckenaer, 1837
- Ernakulam, Thrissur (Sebastian *et al.*, 2011)
- Idukki (Joseph *et al.*, 1998)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Sidheek, 2021)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Tikader, 1966)
- Wayanad (Sunil Jose, 2010)

2. ***Crossopriza lyoni*** (Blackwall, 1867)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Ambily & Antony, 2016)
- Idukki (Joseph *et al.*, 1998)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

3. ***Micropholcus fauroti*** (Simon, 1887)
- Thrissur (Vishnudas & Sudhikumar, 2021)

4. ***Pholcus kapuri*** Tikader, 1977
- Thrissur (Adarsh & Nameer, 2015)

5. ***Pholcus phalangioides*** (Fuesslin, 1775)
- Idukki (Joseph *et al.*, 1998)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Patel, 2003)

- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Prasad *et al.*, 2022)

6. ***Pribumia atrigularis*** (Simon, 1901)
- Ernakulam (Ambily & Antony, 2016)
- Idukki (Mathew *et al.*, 2005)
- Thrissur (Pooja *et al.*, 2016)

7. ***Smeringopus pallidus*** (Blackwall, 1858)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Wayanad (Shabnam *et al.*, 2021)

XXVII. Family Pimoidae

1. ***Pimoa indiscreta*** Hormiga, 1994
- Idukki (Adarsh & Nameer, 2016)

XXVIII. Family Pisauridae

1. ***Dendrolycosa gitae*** (Tikader, 1970)
- Alappuzha (Mathew *et al.*, 2014)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Joseph *et al.*, 2017)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Palakkad (Sebastian *et al.*, 2011)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Joseph *et al.*, 2017)

2. ***Hygropoda chandrakantii*** (Reddy & Patel, 1993)
- Idukki, Wayanad (Joseph *et al.*, 2017)

3. ***Hygropoda sikkimus*** (Tikader, 1970)
- Idukki, Wayanad (Joseph *et al.*, 2017)

4. ***Nilus albocinctus*** (Doleschall, 1859)
- Ernakulam (Sunil Jose *et al.*, 2003a)
- Idukki, Palakkad, Thrissur (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Jose *et al.*, 2007)
- Wayanad (Dhali & Sureshan, 2016)

5. ***Perenethis venusta*** L. Koch, 1878
- Ernakulam (Sunil Jose *et al.*, 2007)
- Idukki (Adarsh & Nameer, 2016)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Jose *et al.*, 2007)
- Palakkad (Sunil Jose *et al.*, 2007)
- Wayanad (Sunil Jose, 2010)

6. ***Pisaura mirabilis*** (Clerck, 1757)
- Idukki (Mathew *et al.*, 2005)

7. ***Polyboea vulpina*** Thorell, 1895
- Idukki (Adarsh & Nameer, 2016)
- Palakkad (Sunil Jose *et al.*, 2008)

8. ***Tinus arindamai*** Biswas & Roy, 2005
- Palakkad (Biswas & Roy, 2005a)

XXIX. Family Prodidomidae

1. ***Zimiris diffusa*** Platnick & Penney, 2004
- Kozhikode (Platnick & Penney, 2004)

XXX. Family Psechridae

1. ***Fecenia protensa*** Thorell, 1891
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam, Idukki, Palakkad (Sebastian *et al.*, 2011)
- Kottayam (Malamel & Samson, 2014)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Pocock, 1899)
- Thrissur (Sivaperuman *et al.*, 2002)

2. ***Psechrus crepido*** Bayer, 2012
- Idukki, Wayanad (Joseph *et al.*, 2017)

3. ***Psechrus torvus*** (O. Pickard-Cambridge, 1869)
- Ernakulam, Thrissur (Sebastian *et al.*, 2011)
- Idukki (Sunil Jose & Sebastian, 2001a)
- Kollam (Jose *et al.*, 2007)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Pocock, 1899)
- Wayanad (Sunil Jose, 2010)

XXXI. Family Salticidae

1. ***Aelurillus improvisus*** Azarkina, 2002
- Idukki (Adarsh & Nameer, 2016)

2. ***Afraflacilla kurichiadensis*** Sudhin, Nafin & Sudhikumar, 2022
- Wayanad (Sudhin *et al.*, 2022a)

3. ***Afraflacilla miajlarensis*** Tripathi, Jangid, Prajapati & Siliwal, 2022
- Wayanad (Sudhin *et al.*, 2022a)

4. ***Asemonea cristata*** Thorell, 1895
- Wayanad (Sudhin *et al.*, 2020)

5. ***Asemonea tenuipes*** (O. Pickard-Cambridge, 1869)
- Alappuzha (Sherriffs, 1931)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Joseph *et al.*, 1998)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Shihabudeen *et al.*, 2022)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Rajeevan *et al.*, 2019)

6. ***Bianor angulosus*** (Karsch, 1879)
- Alappuzha (Babu *et al.*, 2021)
- Idukki (Mathew *et al.*, 2005)
- Thrissur (Pooja *et al.*, 2016)

7. ***Bianor balius*** Thorell, 1890
- Ernakulam (Sebastian *et al.*, 2011)
- Idukki, Palakkad, Thrissur (Sebastian *et al.*, 2011)
- Thiruvananthapuram (Joseph & Premila, 2016)

8. ***Bianor narmadaensis*** (Tikader, 1975)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Wayanad (Dhali & Sureshan, 2016)

9. ***Brettus anchorum*** Wanless, 1979
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Malappuram (Fasila & Gafoor, 2021)

10. ***Brettus cingulatus*** Thorell, 1895
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sivaraman & Joseph, 2016)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Strand, 1912)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Shabnam *et al.*, 2021)

11. ***Carrhotus sannio*** (Thorell, 1877)
- Alappuzha (Malamel & Sudhikumar, 2020)

12. ***Carrhotus tholpettyensis*** Sudhin, Nafin, Caleb & Sudhikumar, 2021
- Wayanad (Sudhin *et al.*, 2021)

13. ***Carrhotus viduus*** (C.L. Koch, 1846)
- Alappuzha (Mathew *et al.*, 2014)
- Ernakulam (Sivaraman & Joseph, 2016)
- Idukki, Palakkad (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Dhali & Sureshan, 2016)

14. ***Chalcotropis pennata*** Simon, 1902
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sivaraman & Joseph, 2016)
- Idukki (Joseph *et al.*, 2017)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Asalatha *et al.*, 2017b)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Ranjini, 2016)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Wayanad (Rajeevan *et al.*, 2019)

15. ***Chrysilla lauta*** Thorell, 1887
- Idukki, Wayanad (Joseph *et al.*, 2017)

16. ***Chrysilla volupe*** (Karsch, 1879)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Shihabudeen *et al.*, 2022)
- Wayanad (Caleb *et al.*, 2018)

17. ***Cocalus lacinia*** Sudhin, Nafin, Sumesh & Sudhikumar, 2019
- Wayanad (Sudhin *et al.*, 2019a)

18. ***Cocalus shendurneyensis*** Sudhin, Sen, Caleb & Hegde, 2022
- Kollam (Sudhin *et al.*, 2022b)

19. ***Curubis tetrica*** Simon, 1902
- Alappuzha (Sankaran *et al.*, 2019a)

- Ernakulam, Kollam (Samson & Sebastian, 2014a)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thrissur (Sankaran *et al.*, 2019a)

20. ***Cyrba ocellata*** (Kroneberg, 1875)
- Palakkad, Ernakulam, Idukki, Thrissur (Sebastian *et al.*, 2011)

21. ***Epeus albus*** Prószyński, 1992
- Idukki, Wayanad (Joseph *et al.*, 2017)

22. ***Epeus flavobilineatus*** (Doleschall, 1859)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Wayanad (Rajeevan *et al.*, 2019)

23. ***Epeus indicus*** Prószyński, 1992
- Ernakulam, Idukki, Palakkad, Thrissur (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Jose *et al.*, 2007)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Wayanad (Dhali & Sureshan, 2016)

24. ***Epeus tener*** (Simon, 1877)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Ambily & Antony, 2016)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Thrissur (Prasad *et al.*, 2022)
- Wayanad (Shabnam *et al.*, 2021)

25. ***Epeus triangulopalpis*** Malamel, Nafin, Sudhikumar & Sebastian, 2019
- Alappuzha, Palakkad, Thrissur, Wayanad (Malamel *et al.*, 2019b)
- Malappuram (Fasila & Gafoor, 2021)

26. ***Epocilla aura*** (Dyal, 1935)
- Palakkad (Patel, 2003)

27. ***Epocilla aurantiaca*** (Simon, 1885)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Idukki (Joseph *et al.*, 2017)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Wayanad (Dhali & Sureshan, 2016)

28. ***Epocilla calcarata*** (Karsch, 1880)
- Wayanad (Rajeevan *et al.*, 2019)

29. ***Euophrys omnisuperstes*** Wanless, 1975
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

30. ***Evarcha falcata*** (Clerck, 1757)
- Thrissur (Prasad *et al.*, 2022)

31. ***Evarcha flavocincta*** (C.L. Koch, 1846)
- Wayanad (Dhali & Sureshan, 2016)

32. ***Evarcha pococki*** Żabka, 1985
- Alappuzha (Malamel & Sudhikumar, 2020)

33. ***Gelotia lanka*** Wijesinghe, 1991
- Thiruvananthapuram (Jose *et al.*, 2023)

34. ***Habrocestum longispinum*** Sankaran, Malamel, Joseph & Sebastian, 2019
- Ernakulam (Sankaran *et al.*, 2019a)

35. ***Habrocestum shendurneyense*** Asima, Caleb, Babu & Prasad, 2022
- Kollam (Asima *et al.*, 2022)

36. ***Harmochirus brachiatus*** (Thorell, 1877)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Dhali & Sureshan, 2016)

37. ***Harmochirus exaggeratus*** Caleb & Mathai, 2015
- Idukki, Wayanad (Joseph *et al.*, 2017)

38. ***Hasarius adansoni*** (Audouin, 1825)
- Alappuzha (Mathew *et al.*, 2005)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki, Palakkad (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Jose *et al.*, 2007)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)

- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Dhali & Sureshan, 2016)

39. *Hindumanes karnatakaensis* (Tikader & Biswas, 1978)
- Ernakulam, Idukki, Palakkad, Thrissur (Sebastian *et al.*, 2011)
- Wayanad (Sudhin *et al.*, 2017)

40. *Hindumanes wayanadensis* Sudhin, Nafin & Sudhikumar, 2017
- Wayanad (Sudhin *et al.*, 2017)

41. *Hyllus diardi* (Walckenaer, 1837)
- Ernakulam, Thrissur (Sebastian *et al.*, 2011)
- Idukki (Mathew *et al.*, 2005)
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Wayanad (Sunil Jose, 2010)

42. *Hyllus pudicus* Thorell, 1895
- Thrissur (Pooja *et al.*, 2016)

43. *Hyllus semicupreus* (Simon, 1885)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2011)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Patel, 2003)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Rajeevan *et al.*, 2019)

44. *Icius vikrambatrai* Prajapati, Malamel, Sudhikumar & Sebastian, 2018
- Alappuzha (Malamel & Sudhikumar, 2020)
- Alappuzha (Prajapati *et al.*, 2018)

45. *Indomarengo chavarapater* Malamel, Prajapati, Sudhikumar & Sebastian, 2019
- Alappuzha (Malamel *et al.*, 2019c)

46. *Indopadilla insularis* (Malamel, Sankaran & Sebastian, 2015)
- Alappuzha, Ernakulam (Malamel *et al.*, 2015c)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Jose *et al.*, 2007)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Shihabudeen *et al.*, 2022)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Malamel *et al.*, 2015c)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Asalatha *et al.*, 2017a)

47. *Marengo batheryensis* Sudhin, Nafin, Benjamin & Sudhikumar, 2019
- Wayanad (Sudhin *et al.*, 2019b)

48. *Marengo nitida* Simon, 1900
- Thiruvananthapuram (Sherriffs, 1931)

49. *Marengo sachintendulkar* Malamel, Prajapati, Sudhikumar & Sebastian, 2019
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Alappuzha (Malamel *et al.*, 2019c)

50. *Marengo striatipes* Simon, 1900
- Thiruvananthapuram (Sherriffs, 1931)

51. *Marengo zebra* Sudhin, Nafin, Benjamin & Sudhikumar, 2019
- Wayanad (Sudhin *et al.*, 2019b)

52. *Maripanthus gloria* Caleb, 2021
- Kollam (Asima *et al.*, 2021a)

53. *Menemerus bivittatus* (Dufour, 1831)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Dhali & Sureshan, 2016)

54. ***Myrmaplata aureonigra*** (Edmunds & Prószyński, 2003)
- Wayanad (Rajeevan *et al.*, 2019)

55. ***Myrmaplata plataleoides*** (O. Pickard-Cambridge, 1869)
- Alappuzha (Mathew *et al.*, 2005)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Sudhikumar *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

56. ***Myrmarachne cornuta*** Badcock, 1918
- Wayanad (Rajeevan *et al.*, 2019)

57. ***Myrmarachne formicaria*** (De Geer, 1778)
- Wayanad (Rajeevan *et al.*, 2019)

58. ***Myrmarachne japonica*** (Karsch, 1879)
- Wayanad (Rajeevan *et al.*, 2019)

59. ***Myrmarachne kochi*** Reimoser, 1925
- Kannur, Kasaragod (Jose *et al.*, 2018)

60. ***Myrmarachne melanocephala*** MacLeay, 1839
- Alappuzha (Mathew *et al.*, 2005)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki, Palakkad (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Prasad *et al.*, 2022)
- Wayanad (Dhali & Sureshan, 2016)

61. ***Myrmarachne prava*** (Karsch, 1880)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Wayanad (Rajeevan *et al.*, 2019)

62. ***Myrmarachne ramunni*** Narayan, 1915
- Kottayam (Malamel & Samson, 2014)
- Malappuram (Fasila & Gafoor, 2021)
- Thrissur (Smitha & Sudhikumar, 2020)

63. ***Myrmarachne robusta*** (G.W. Peckham & E.G. Peckham, 1892)
- Alappuzha (Malamel & Sudhikumar, 2020)

64. ***Myrmarachne spissa*** (G.W. Peckham & E.G. Peckham, 1892)
- Alappuzha, Wayanad (Tripathi *et al.*, 2023)

65. ***Neon reticulatus*** (Blackwall, 1853)
- Kasaragod (Sumesh & Sudhikumar, 2020)

66. ***Phaeacius lancearius*** (Thorell, 1895)
- Alappuzha (Malamel, 2018)
- Idukki (Adarsh & Nameer, 2016)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)

67. ***Phaeacius malayensis*** Wanless, 1981
- Thiruvananthapuram (Asima *et al.*, 2020)

68. ***Phaeacius wanlessi*** Wijesinghe, 1991
- Alappuzha (Malamel, 2018)

69. ***Phidippus yashodharae*** Tikader, 1977
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Palakkad (Shihabudeen *et al.*, 2022)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thrissur (Prasad *et al.*, 2022)

70. ***Phintella debilis*** (Thorell, 1891)
- Pathanamthitta (Sudhin *et al.*, 2023a)

71. ***Phintella vittata*** (C.L. Koch, 1846)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Pathanamthitta (Abhilash & Kumar, 2018)

- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Dhali & Sureshan, 2016)

72. *Phintelloides jesudasi* (Caleb & Mathai, 2014)
- Thrissur (Smitha & Sudhikumar, 2020)

73. *Phintelloides undulatus* (Caleb & Karthikeyani, 2015)
- Ernakulam (Prajapati & Kamboj, 2020)

74. *Piranthus planolancis* Malamel, Nafin, Sudhikumar & Sebastian, 2019
- Alappuzha (Malamel *et al.*, 2019b)
- Thrissur (Malamel *et al.*, 2019b; Nafin *et al.*, 2020**)**

75. *Plexippus paykulli* (Audouin, 1825)
- Alappuzha (Mathew *et al.*, 2014)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Prasad *et al.*, 2022)
- Wayanad (Dhali & Sureshan, 2016)

76. *Plexippus petersi* (Karsch, 1878)
- Alappuzha (Mathew *et al.*, 2005)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Sebastian *et al.*, 2005a)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Jose *et al.*, 2007)
- Kottayam (Malamel & Samson, 2014)
- Malappuram (Sidheek, 2021)
- Palakkad (Sebastian *et al.*, 2011)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Rajeevan *et al.*, 2019)

77. *Plexippus redimitus* Simon, 1902
- Thiruvananthapuram (Sherriffs, 1931)

78. *Portia fimbriata* (Doleschall, 1859)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Samson & Sebastian, 2014b)
- Idukki (Mathew *et al.*, 2005)
- Kannur (Jose *et al.*, 2018)
- Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Palakkad (Sebastian *et al.*, 2011)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Shabnam *et al.*, 2021)

79. *Rhene albigera* (C.L. Koch, 1846)
- Idukki, Wayanad (Joseph *et al.*, 2017)

80. *Rhene daitarensis* Prószyński, 1992
- Idukki (Joseph *et al.*, 2017)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Wayanad (Joseph *et al.*, 2017)

81. *Rhene flavicomans* Simon, 1902
- Alappuzha (Malamel & Sudhikumar, 2020)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Pooja *et al.*, 2016)

82. *Rhene flavigera* (C.L. Koch, 1846)
- Alappuzha (Mathew *et al.*, 2005)
- Ernakulam, Palakkad (Sebastian *et al.*, 2011)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Dhali & Sureshan, 2016)

83. *Rhene rubrigera* (Thorell, 1887)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Dhali *et al.*, 2019)
- Wayanad (Caleb *et al.*, 2022)

84. *Siler semiglaucus* (Simon, 1901)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam, Idukki, Palakkad (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Jose *et al.*, 2018)

- Kottayam (John & Tom, 2018)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Rajeevan *et al.*, 2019)

85. ***Stenaelurillus albus*** Sebastian, Sankaran, Malamel & Joseph, 2015
- Ernakulam (Sebastian *et al.*, 2015)
- Thrissur (Prajapati *et al.*, 2016a)
- Thiruvananthapuram (Sudhin *et al.*, 2023b)

86. ***Stenaelurillus lesserti*** Reimoser, 1934
- Ernakulam (Sebastian *et al.*, 2015)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Caleb & Sanap, 2016)
- Thrissur (Dhanya *et al.*, 2022)

87. ***Stenaelurillus neyyar*** Sudhin, Sen & Caleb, 2023
- Thiruvananthapuram (Sudhin *et al.*, 2023b)

88. ***Synagelides munnar*** Logunov, 2017
- Idukki (Logunov, 2017)

89. ***Tamigalesus munnaricus*** Żabka, 1988
- Ernakulam, Pathanamthitta (Samson & Sebastian, 2013)

90. ***Telamonia dimidiata*** (Simon, 1899)
- Alappuzha (Mathew *et al.*, 2014)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Asalatha *et al.*, 2017a)

91. ***Telamonia elegans*** (Thorell, 1887)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Sidheek, 2021)
- Wayanad (Rajeevan *et al.*, 2019)

92. ***Thiania bhamoensis*** Thorell, 1887
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Davis *et al.*, 2005)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Davis *et al.*, 2005)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sebastian *et al.*, 2011)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Davis *et al.*, 2005)

93. ***Thiania indica*** Asima, Caleb & Prasad, 2023
- Kollam (Asima *et al.*, 2023)

94. ***Thyene calebi*** (Kanesharatnam & Benjamin, 2018)
- Malappuram (Fasila & Gafoor, 2021)

95. ***Toxeus alboclavus*** Jose & Sudhikumar, 2022
- Wayanad (Jose & Sudhikumar, 2022)

96. ***Uroballus nazirwanii*** Prajapati, Malamel & Sebastian, 2020
- Alappuzha (Prajapati *et al.*, 2020)

97. ***Yaginumaella aishwaryi*** Sunil Jose, 2013
- Ernakulam (Sunil Jose, 2013)

XXXII. Family Scytodidae

1. ***Scytodes fusca*** Walckenaer, 1837
- Alappuzha (Mathew *et al.*, 2005)
- Ernakulam, Palakkad (Sebastian *et al.*, 2011)
- Idukki (Sudhikumar *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Thrissur (Prasad *et al.*, 2022)

2. ***Scytodes kinsukus*** Patel, 1975
- Palakkad (Patel, 2003)

3. ***Scytodes pallida*** Doleschall, 1859
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Palakkad (Shihabudeen *et al.*, 2022)

4. ***Scytodes thoracica*** (Latreille, 1802)
- Alappuzha (Mathew *et al.*, 2014)
- Ernakulam (Sebastian *et al.*, 2005b)

- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Patel, 2003)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Shabnam *et al.*, 2021)

XXXIII. Family Selenopidae

1. *Selenops radiatus* Latreille, 1819
- Idukki (Adarsh & Nameer, 2016)
- Kerala (Malabar coast) (Simon, 1880)
- Thrissur (Gravely, 1931)

XXXIV. Family Sicariidae

1. *Loxosceles rufescens* (Dufour, 1820)
- Alappuzha (Malamel & Sudhikumar, 2020)

XXXV. Family Sparassidae

1. *Gnathopalystes flavidus* (Simon, 1897)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Jäger *et al.*, 2022)
- Wayanad (Sunil Jose, 2010)

2. *Heteropoda fischeri* Jäger, 2005
- Idukki, Wayanad (Joseph *et al.*, 2017)

3. *Heteropoda hampsoni* Pocock, 1901
- Idukki (Mathew *et al.*, 2005)
- Thrissur (Pooja *et al.*, 2016)

4. *Heteropoda lentula* Pocock, 1901
- Idukki (Adarsh & Nameer, 2016)
- Thiruvananthapuram (Pocock, 1901)

5. *Heteropoda leprosa* Simon, 1884
- Ernakulam (Sethi & Tikader, 1988)
- Idukki (Adarsh & Nameer, 2016)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Sethi & Tikader, 1988)
- Thrissur (Gravely, 1931)
- Wayanad (Sunil Jose, 2010)

6. *Heteropoda lunula* (Doleschall, 1857)
- Thrissur (Adarsh & Nameer, 2015)

7. *Heteropoda nilgirina* Pocock, 1901
- Ernakulam, Idukki, Palakkad, Thrissur (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Thiruvananthapuram (Asima *et al.*, 2020)

8. *Heteropoda phasma* Simon, 1897
- Idukki (Sudhikumar *et al.*, 2005)
- Palakkad (Patel, 2003)

9. *Heteropoda sexpunctata* Simon, 1885
- Palakkad (Gravely, 1931)

10. *Heteropoda venatoria* (Linnaeus 1767)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Joseph *et al.*, 1998)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Jose *et al.*, 2007)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Patel, 2003)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Rajeevan *et al.*, 2019)

11. *Martensopoda minuscula* (Reimoser, 1934)
- Idukki, Pathanamthitta (Sankaran *et al.*, 2015c)

12. *Martensopoda sanctor* Sankaran, Malamel, Joseph & Sebastian, 2015
- Idukki, Wayanad (Joseph *et al.*, 2017)
- Thiruvananthapuram (Sankaran *et al.*, 2015c)

13. *Martensopoda transversa* Jäger, 2006
- Idukki (Jäger, 2006)

14. *Olios milleti* **(**Pocock, 1901)
- Thrissur (Pooja *et al.*, 2016)
- Ernakulam, Palakkad (Sebastian *et al.*, 2011)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)

15. *Olios obesulus* **(**Pocock, 1901**)**
- Kannur, Thiruvananthapuram (Gravely, 1931)

16. *Pandercetes celatus* Pocock, 1899
- Thiruvananthapuram (Pocock, 1899)

17. *Pseudopoda fabularis* Jäger, 2008
- Idukki, Wayanad (Joseph *et al.*, 2017)

18. *Pseudopoda straminiosa* (Kundu, Biswas & Raychaudhuri, 1999)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

19. *Stasina paripes* (Karsch, 1879)
- Alappuzha (Sherriffs, 1919)

20. *Thelcticopis moolampilliensis* Sunil Jose & Sebastian, 2007
- Ernakulam (Sunil Jose & Sebastian, 2007)
- Idukki (Joseph *et al.*, 2017)
- Thrissur (Jäger *et al.*, 2022)
- Wayanad (Sunil Jose, 2010)

21. *Thelcticopis virescens* Pocock, 1901
- Alappuzha (Malamel & Sudhikumar, 2020)
- Thiruvananthapuram (Pocock, 1901)

XXXVI. Family Stenochilidae

1. *Stenochilus hobsoni* O. Pickard-Cambridge, 1871
- Palakkad (Sunil Jose *et al.*, 2008)

XXXVII. Family Tetrablemmidae

1. *Shearella alii* Sankaran & Sebastian, 2016
- Thrissur (Sankaran & Sebastian, 2016)

2. *Tetrablemma mediocula tum cochinense* Lehtinen, 1981
- Ernakulam (Sankaran & Sebastian, 2016)

XXXVIII. Family Tetragnathidae

1. *Atelidea nona* Sankaran, Malamel, Joseph & Sebastian, 2017
- Thiruvananthapuram (Sankaran *et al.*, 2017c)

2. *Dolichognatha longiceps* (Thorell, 1895)
- Ernakulam (Sunil Jose, 2014)
- Idukki, Wayanad (Joseph *et al.*, 2017)

3. *Glenognatha dentata* (Zhu & Wen, 1978)
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam, Idukki, Palakkad, Thrissur, Palakkad, Thrissur (Sebastian *et al.*, 2011)
- Alappuzha (Sudhikumar, 2007)
- Ernakulam, Idukki (Sebastian *et al.*, 2005a)
- Thiruvananthapuram (Joseph & Premila, 2016)

4. *Glenognatha paullula* Sankaran, Caleb & Sebastian, 2020
- Malappuram (Sankaran *et al.*, 2020b)

5. *Leucauge bituberculata* Baert 1987
- Ernakulam, Idukki (Sebastian *et al.*, 2005a)

6. *Leucauge celebesiana* (Walckenaer, 1841)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Joseph *et al.*, 1998)
- Palakkad (Patel, 2003)
- Thrissur (Sebastian *et al.*, 2011)

7. *Leucauge decorata* (Blackwall, 1864)
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam (Sebastian *et al.*, 2011)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

8. *Leucauge dorsotuberculata* Tikader, 1982
- Ernakulam (Ambily & Antony, 2016)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (John & Tom, 2018)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

9. *Leucauge fastigata* (Simon, 1877)
- Ernakulam (Sebastian *et al.*, 2011)
- Idukki (Joseph *et al.*, 1998)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Jose *et al.*, 2007)

- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Anju *et al.*, 2021)
- Palakkad (Sivaperuman *et al.*, 2005)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

10. ***Leucauge granulata*** (Walckenaer, 1841)
- Alappuzha (Sudhikumar *et al.*, 2004)

11. ***Leucauge subgemmea*** Bösenberg & Strand, 1906
- Ernakulam, Idukki, Palakkad, Thrissur (Sebastian *et al.*, 2011)

12. ***Leucauge tessellata*** (Thorell, 1887)
- Ernakulam, Thrissur (Sebastian *et al.*, 2011)
- Idukki (Joseph *et al.*, 1998)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Gravely, 1921)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Wayanad (Sunil Jose, 2010)

13. ***Mesida culta*** (O. Pickard-Cambridge, 1869)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Sudhikumar *et al.*, 2005)
- Palakkad (Patel, 2003)
- Thrissur (Sebastian *et al.*, 2011)
- Wayanad (Sunil Jose, 2010)

14. ***Orsinome armata*** Pocock, 1901
- Ernakulam, Idukki, Palakkad, Thrissur (Sebastian *et al.*, 2011)

15. ***Tetragnatha andamanensis*** Tikader, 1977
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam, Idukki (Sebastian *et al.*, 2005a)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Sebastian *et al.*, 2011)
- Wayanad (Sunil Jose, 2010)

16. ***Tetragnatha bengalensis*** Walckenaer, 1841
- Idukki, Wayanad (Joseph *et al.*, 2017)

17. ***Tetragnatha bituberculata*** L. Koch, 1867
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

18. ***Tetragnatha ceylonica*** O. Pickard-Cambridge 1869
- Ernakulam, Idukki (Sebastian *et al.*, 2005a)
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad (Gravely, 1921)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Thrissur (Sebastian *et al.*, 2011)
- Wayanad (Sunil Jose, 2010)

19. ***Tetragnatha cochinensis*** Gravely, 1921
- Alappuzha (Mathew *et al.*, 2014)
- Ernakulam, Palakkad, Thrissur (Gravely, 1921)
- Idukki (Sebastian *et al.*, 2005a)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kozhikode (Dhali *et al.*, 2019)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Wayanad (Sunil Jose, 2010)

20. ***Tetragnatha elongata*** Walckenaer, 1841
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Thiruvananthapuram (Asima *et al.*, 2020)

21. ***Tetragnatha fletcheri*** Gravely, 1921
- Alappuzha (Mathew *et al.*, 2005)
- Idukki (Sebastian *et al.*, 2005a)
- Thiruvananthapuram (Joseph & Premila, 2016)

22. ***Tetragnatha hasselti*** Thorell, 1890
- Wayanad (Shabnam *et al.*, 2021)

23. ***Tetragnatha javana*** (Thorell, 1890)
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam (Sivaraman & Joseph, 2016)

- Idukki, Palakkad, Thrissur (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Gravely, 1921)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Sidheek, 2021)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Wayanad (Dhali & Sureshan, 2016)

24. ***Tetragnatha keyserlingi*** Simon, 1890
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam, Thrissur (Gravely, 1921)
- Idukki (Sebastian *et al.*, 2005a)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Wayanad (Sunil Jose, 2010)

25. ***Tetragnatha mandibulata*** Walckenaer, 1841
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam, Thrissur (Gravely, 1921)
- Idukki (Sebastian *et al.*, 2005a)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Malappuram (Radhakrishnan *et al.*, 2006)
- Palakkad (Sivaperuman *et al.*, 2005)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Wayanad (Dhali & Sureshan, 2016)

26. ***Tetragnatha montana*** Simon, 1874
- Malappuram (Sidheek, 2021)

27. ***Tetragnatha nitens*** (Savigny, 1825)
- Alappuzha (Sudhikumar *et al.*, 2004)

28. ***Tetragnatha sutherlandi*** Gravely, 1921
- Idukki (Sudhikumar *et al.*, 2005)
- Palakkad (Patel, 2003)
- Thrissur (Gravely, 1921)

29.*Tetragnatha vermiformis* Emerton, 1884
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Sebastian *et al.*, 2011)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Gravely, 1921)

30. ***Tetragnatha versicolor*** Walckenaer, 1841
- Alappuzha (Malamel & Sudhikumar, 2020)

31. ***Tetragnatha viridorufa*** Gravely, 1921
- Alappuzha (Mathew *et al.*, 2014)
- Ernakulam (Gravely, 1921)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Palakkad (Shihabudeen *et al.*, 2022)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Shabnam *et al.*, 2021)

32. ***Tylorida flava*** Sankaran, Malamel, Joseph & Sebastian, 2017
- Ernakulam, Kollam (Sankaran *et al.*, 2017c)
- Wayanad (Anju & Sudhikumar, 2023)

33. ***Tylorida marmorea*** **(**Pocock, 1901**)**
- Idukki, Wayanad (Joseph *et al.*, 2017)
- Kottayam, Palakkad (Gravely, 1921)
- Malappuram (Sankaran *et al.*, 2017c)
- Thiruvananthapuram (Pocock, 1901)

34. ***Tylorida striata*** (Thorell, 1877)
- Alappuzha (Sankaran *et al.*, 2017c)
- Ernakulam (Sivaraman & Joseph, 2016)
- Idukki (Joseph *et al.*, 2017)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Dhali & Sureshan, 2016)

35. ***Tylorida ventralis*** (Thorell, 1877)
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Joseph *et al.*, 1998)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Sankaran *et al.*, 2017c)

- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Patel, 2003)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Gravely, 1921)
- Wayanad (Dhali & Sureshan, 2016)

36. ***Wolongia papafrancisi*** Malamel, Nafin, Sankaran & Sebastian, 2018
- Alappuzha (Malamel & Sudhikumar, 2020)

XXXIX. Family Theraphosidae

1. ***Annandaliella ernakulamensis*** Sunil Jose & Sebastian, 2008
- Ernakulam (Sunil Jose & Sebastian, 2008)

2. ***Annandaliella travancorica*** Hirst, 1909
- Kollam, Thrissur (Gravely, 1915)
- Kozhikode (Sunil Jose & Prasanth, 2015)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Hirst, 1909)

3. ***Chilobrachys hardwickei*** (Pocock, 1895)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kollam (Siliwal *et al.*, 2011)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Siliwal *et al.*, 2011)

4. ***Haploclastus devamatha*** Prasanth & Sunil Jose, 2014
- Kollam (Prasanth & Sunil Jose, 2014 ; Sankaran & Sebastian, 2018d)
- Pathanamthitta (Sanap & Mirza, 2014)

5. ***Haploclastus kayi*** Gravely, 1915
- Idukki (Joseph *et al.*, 2017)
- Malappuram (Sunil Jose, 2017a)
- Palakkad (Gravely, 1915)
- Thrissur (Awasthy *et al.*, 2020)
- Wayanad (Joseph *et al.*, 2017)

6. ***Haploclastus nilgirinus*** Pocock, 1899
- Idukki, Wayanad (Joseph *et al.*, 2017)

7. ***Neoheterophrictus bhori*** **(**Gravely, 1915**)**
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad (Gravely, 1915)

8. ***Neoheterophrictus chimminiensis*** Sunil Jose, 2020
- Palakkad (Karthika & Sunil Jose, 2021)
- Thrissur (Sunil Jose, 2020)

9. ***Neoheterophrictus crurofulvus*** Siliwal, Gupta & Raven, 2012
- Idukki (Karthika *et al.*, 2021)

10. ***Poecilotheria hanumavilasumica*** Smith, 2004
- Idukki (Sunil Jose, 2017b)

11. ***Poecilotheria regalis*** Pocock, 1899
- Central Kerala (Siliwal *et al.*, 2011)
- Thrissur (Cheeran & Nagaraj, 1997)

12. ***Poecilotheria rufilata*** Pocock, 1899
- Idukki (Sunil Jose, 2021b)
- Kollam (Jose *et al.*, 2007)
- Malappuram (Sivaperuman *et al.*, 2002)
- Palakkad (Sivaperuman *et al.*, 2005)
- Thiruvananthapuram (Pocock, 1900)

13. ***Poecilotheria striata*** Pocock, 1895
- Idukki (Adarsh & Nameer, 2016)
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad (Patel, 2003)
- Thiruvananthapuram (Pocock, 1899)
- Thrissur (Siliwal *et al.*, 2013)
- Wayanad (Sunil Jose, 2010)

14. ***Sahydroaraneus hirsti*** Mirza & Sanap, 2014
- Thrissur (Mirza *et al.*, 2014)

15. ***Sahydroaraneus raja*** **(**Gravely, 1915**)**
- Ernakulam, Thrissur (Gravely, 1915)
- Palakkad (Sunil Jose *et al.*, 2008)

16. ***Sahydroaraneus sebastiani*** Sunil Jose, 2017
- Kozhikode, Thrissur (Sunil Jose, 2017c)

17. ***Thrigmopoeus truculentus*** Pocock, 1899
- Kasaragod (Sunil Jose, 2017b)

XL. Family Theridiidae

1. ***Achaearanea diglipuriensis*** Tikader, 1977
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

2. ***Achaearanea durgae*** Tikader, 1970
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

3. ***Achaearanea triangularis*** Patel, 2005
- Idukki, Wayanad (Joseph *et al.*, 2017)
- Palakkad (Patel, 2003)

4. ***Argyrodes ambalikae*** Tikader, 1970
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kozhikode (Vineetha & George, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

5. ***Argyrodes amboinensis*** Thorell, 1878
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

6. ***Argyrodes argentatus*** O. Pickard-Cambridge, 1880
- Alappuzha (Malamel & Sudhikumar, 2020)
- Idukki, Wayanad (Joseph *et al.*, 2017)
- Kottayam (Malamel & Samson, 2014)
- Thiruvananthapuram (Asima *et al.*, 2020)

7. ***Argyrodes bonadea*** (Karsch, 1881)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Idukki, Wayanad (Joseph *et al.*, 2017)

8. ***Argyrodes fissifrons*** O. Pickard-Cambridge, 1869
- Kozhikode (Vineetha & George, 2021)
- Thrissur (Pooja *et al.*, 2016)

9. ***Argyrodes flavescens*** O. Pickard-Cambridge, 1880
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam, Idukki, Thrissur (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Vineetha & George, 2021)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Shihabudeen *et al.*, 2022)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Wayanad (Asalatha *et al.*, 2017a)

10. ***Argyrodes gazedes*** Tikader, 1970
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2011)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Vineetha & George, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

11. ***Argyrodes gazingensis*** Tikader, 1970
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

12. ***Argyrodes gracilis*** (L. Koch, 1872)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

13. ***Argyrodes kumadai*** Chida & Tanikawa, 1999
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Thrissur (Prasad *et al.*, 2022)

14. ***Argyrodes miniaceus*** (Doleschall, 1857)
- Palakkad (Sibi *et al.*, 2023)

15. ***Ariamnes flagellum*** (Doleschall, 1857)
- Ernakulam (Sudhikumar *et al.*, 2003)
- Idukki (Mathew *et al.*, 2005)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Dhanya *et al.*, 2022)
- Alappuzha (Malamel & Sudhikumar, 2020)

- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Wayanad (Sunil Jose, 2010)

16. ***Chikunia nigra*** (O. Pickard-Cambridge, 1880)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Dhali *et al.*, 2019)
- Wayanad (Asalatha *et al.*, 2017a)

17. ***Chrysso angula*** (Tikader, 1970)
- Ernakulam (Sebastian *et al.*, 2005b)
- Idukki (Mathew *et al.*, 2005; Sudhikumar *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018; Sumesh & Sudhikumar, 2020)
- Kollam (Jose *et al.*, 2007)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Sekhar & Sunil Jose, 2019a)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Pathanamthitta (Abhilash & Kumar, 2018)
- Thrissur (Sebastian *et al.*, 2011; Dhanya *et al.*, 2022)
- Wayanad (Sunil Jose, 2010; Joseph *et al.*, 2017)

18. ***Chrysso urbasae*** (Tikader, 1970)
- Ernakulam (Sebastian *et al.*, 2011)
- Idukki (Mathew *et al.*, 2005)
- Kasaragod (Vishnudas *et al.*, 2022)
- Kottayam (Malamel & Samson, 2014)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

19. ***Coleosoma blandum*** O. Pickard-Cambridge, 1882
- Alappuzha (Malamel & Sudhikumar, 2020)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Dhali & Sureshan, 2016)

20. ***Coleosoma floridanum*** Banks, 1900
- Alappuzha (Sudhikumar, 2007)
- Idukki (Mathew *et al.*, 2005)

21. ***Enoplognatha diodonta*** Zhu & Zhang, 1992
- Idukki, Wayanad (Joseph *et al.*, 2017)

22. ***Episinus affinis*** Bösenberg & Strand, 1906
- Idukki, Wayanad (Joseph *et al.*, 2017)

23. ***Episinus pentagonalis*** Chakrabarti, 2013
- Idukki, Wayanad (Joseph *et al.*, 2017)

24. ***Faiditus xiphias*** (Thorell, 1887)
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

25. ***Latrodectus hasselti*** Thorell, 1870
- Idukki (Adarsh & Nameer, 2016)

26. ***Meotipa andamanensis*** (Tikader, 1977)
- Alappuzha (Sudhikumar *et al.*, 2004)
- Idukki (Mathew *et al.*, 2005)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

27. ***Meotipa argyrodiformis*** (Yaginuma, 1952)
- Alappuzha (Sudhikumar, 2007; Sudhikumar *et al.*, 2004)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Malamel & Samson, 2014)
- Palakkad, Thrissur (Sebastian *et al.*, 2011)
- Thrissur (Prasad *et al.*, 2022)

28. ***Meotipa multuma*** Murthappa, Malamel, Prajapati, Sebastian & Venkateshwarlu, 2017
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Sekhar & Sunil Jose, 2021a)
- Thrissur (Dhanya *et al.*, 2022)

29. ***Meotipa picturata*** Simon, 1895
- Alappuzha (Malamel & Sudhikumar, 2020)
- Alappuzha (Murthappa *et al.*, 2017)
- Kannur, Kasaragod (Jose *et al.*, 2018)

- Pathanamthitta (Abhilash & Kumar, 2018)
- Thrissur (Pooja *et al.*, 2016)

30. ***Molione triacantha*** Thorell, 1893
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

31. ***Neospintharus trigonum*** (Hentz, 1850)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

32. ***Nesticodes rufipes*** (Lucas, 1846)
- Alappuzha (Sherriffs, 1919)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kottayam (Sekhar & Sunil Jose, 2017)
- Thrissur (Smitha & Sudhikumar, 2020)

33. ***Nihonhimea brookesiana*** (Barrion & Litsinger, 1995)
- Idukki, Wayanad (Joseph *et al.*, 2017)

34. ***Nihonhimea japonica*** (Bösenberg & Strand, 1906)
- Thrissur (Sekhar & Sunil Jose, 2019b)

35. ***Nihonhimea mundula*** (L. Koch, 1872)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

36. ***Parasteatoda celsabdomina*** (Zhu, 1998)
- Thrissur (Sekhar & Sunil Jose, 2016)

37. ***Parasteatoda corrugata*** Yoshida, 2016
- Malappuram (Fasila & Gafoor, 2021)

38. ***Parasteatoda oxymaculata*** (Zhu, 1998)
- Idukki, Wayanad (Joseph *et al.*, 2017)

39. ***Parasteatoda tepidariorum*** (C.L. Koch, 1841)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sebastian *et al.*, 2005a)

40. ***Phoroncidia septemaculeata*** O. Pickard-Cambridge, 1873
- Ernakulam (Nafin *et al.*, 2019)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Thrissur (Nafin *et al.*, 2019; Dhanya *et al.*, 2022)

41. ***Phycosoma martinae*** (Roberts, 1983)
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki, Thrissur (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

42. ***Platnickina mneon*** (Bösenberg & Strand, 1906)
- Thiruvananthapuram (Asima *et al.*, 2020)

43. ***Propostira quadrangulata*** Simon, 1894
- Thrissur (Smitha & Sudhikumar, 2020)

44. ***Rhomphaea labiata*** (Zhu & Song, 1991)
- Thrissur (Sekhar & Sunil Jose, 2018)

45. ***Rhomphaea projiciens*** O. Pickard-Cambridge, 1896
- Idukki, Wayanad (Joseph *et al.*, 2017)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Thrissur (Dhanya *et al.*, 2022)

46. ***Steatoda cingulata*** (Thorell, 1890)
- Idukki, Wayanad (Joseph *et al.*, 2017)

47. ***Theridion bengalensis*** Sen, Saha & Raychaudhuri, 2011
- Idukki, Wayanad (Joseph *et al.*, 2017)

48. ***Theridion hotanense*** Zhu & Zhou, 1993
- Idukki (Sekhar *et al.*, 2021)

49. ***Theridion incertum*** O. Pickard-Cambridge, 1885
- Idukki (Mathew *et al.*, 2005)
- Thrissur (Pooja *et al.*, 2016)

50. ***Theridion lumabani*** Barrion & Litsinger, 1995
- Alappuzha (Sudhikumar *et al.*, 2004)

51. ***Theridion manjithar*** Tikader, 1970
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Ambily & Antony, 2016)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Kozhikode (Vineetha & George, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Sunil Jose, 2010)

52. ***Theridion zonulatum*** Thorell 1890
- Ernakulam, Kollam, Thiruvananthapuram, Thrissur (Sankaran *et al.*, 2015d)
- Idukki, Wayanad (Joseph *et al.*, 2017)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kozhikode (Dhali *et al.*, 2019)

53. ***Theridula gonygaster*** (Simon, 1873)
- Kottayam ? (Sekhar & Sunil Jose, 2021b)
- Malappuram (Fasila & Gafoor, 2021)
- Wayanad (Rajeevan *et al.*, 2019)

54. ***Theridula opulenta*** (Walckenaer, 1841)
- Kottayam ? (Sekhar & Sunil Jose, 2021b)

55. ***Thwaitesia margaritifera*** O. Pickard-Cambridge, 1881
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Thrissur (Dhanya *et al.*, 2022)
- Wayanad (Shabnam *et al.*, 2021)

XLI. Family Thomisidae

1. ***Amyciaea albomaculata*** (O. Pickard-Cambridge, 1874)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

2. ***Amyciaea forticeps*** (O. Pickard-Cambridge, 1873)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sunil Jose *et al.*, 2003b)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)
- Wayanad (Rajeevan *et al.*, 2019)

3. ***Bomis larvata*** L. Koch, 1874
- Wayanad (Dhali & Sureshan, 2016)

4. ***Camaricus formosus*** Thorell, 1887
- Ernakulam (Ambily & Antony, 2016)
- Idukki (Mathew *et al.*, 2005)
- Kannur (Radhakrishnan *et al.*, 2006)
- Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Dhali *et al.*, 2019)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sebastian *et al.*, 2011)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Dhali & Sureshan, 2016)

5. ***Camaricus khandalaensis*** Tikader, 1980
- Idukki (Sudhikumar *et al.*, 2005)
- Kozhikode (Dhali *et al.*, 2019)
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

6. ***Camaricus rinkae*** Biswas & Roy, 2005
- Palakkad (Biswas & Roy, 2005c)

7. ***Demogenes andamanensis*** (Tikader, 1980)
- Idukki (Sudhikumar *et al.*, 2005)
- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

8. ***Ebrechtella concinna*** (Thorell, 1877)
- Alappuzha (Mathew *et al.*, 2014)
- Palakkad (Sunil Jose *et al.*, 2008)

9. ***Epidius armatus*** (Thorell, 1895)
- Idukki, Wayanad (Joseph *et al.*, 2017)

10. ***Epidius longipalpis*** Thorell, 1877
- Idukki, Wayanad (Joseph *et al.*, 2017)

11. ***Epidius parvati*** Benjamin, 2000
- Alappuzha (Malamel & Sudhikumar, 2017)
- Idukki, Wayanad (Joseph *et al.*, 2017)

12. ***Henriksenia hilaris*** (Thorell, 1877)
- Idukki (Mathew *et al.*, 2005)

- Palakkad (Sunil Jose *et al.*, 2008)
- Wayanad (Sunil Jose, 2010)

13. ***Indoxysticus minutus*** (Tikader, 1960)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Vineetha & George, 2021)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Shihabudeen *et al.*, 2022)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Dhanya *et al.*, 2022)
- Wayanad (Shabnam *et al.*, 2021)

14. ***Loxobates kapuri*** (Tikader, 1980)
- Wayanad (Dhali & Sureshan, 2016)

15. ***Misumena chrysanthemi*** Sebastian & Peter, 2009 [*Nomen nudum* in WSC]
- Thiruvananthapuram (Asima *et al.*, 2020)

16. ***Misumena indra*** Tikader, 1963
- Thrissur (Pooja *et al.*, 2016)

17. ***Misumena mridulai*** Tikader, 1962
- Ernakulam (Sunil Jose & Sebastian, 2001b)

18. ***Monaeses israeliensis*** Levy, 1973
- Wayanad (Sen & Sureshan, 2021c)

19. ***Oxytate elongata*** (Tikader, 1980)
- Wayanad (Dhali & Sureshan, 2016)

20. ***Oxytate greenae*** (Tikader, 1980)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Kozhikode (Dhali *et al.*, 2019)

21. ***Oxytate virens*** (Thorell, 1891)
- Alappuzha (Mathew *et al.*, 2014)
- Ernakulam (Ambily & Antony, 2016)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Dhali & Sureshan, 2016)

22. ***Platythomisus sudeepi*** Biswas, 1977
- Thrissur (Siliwal & Molur, 2005)

23. ***Psammitis minor*** (Charitonov, 1946)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

24. ***Runcinia ghorpadei*** Tikader, 1980
- Wayanad (Dhali & Sureshan, 2016)

25. ***Runcinia insecta*** (L. Koch, 1875)
- Ernakulam (Sunil Jose & Sebastian, 2001b)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Radhakrishnan *et al.*, 2006)

26. ***Runcinia roonwali*** Tikader, 1965
- Idukki (Adarsh & Nameer, 2016)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Palakkad (Ranjini, 2016)

27. ***Strigoplus moluri*** Patel, 2003
- Palakkad (Patel, 2003)

28. ***Strigoplus netravati*** Tikader, 1963
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Asalatha *et al.*, 2017a)

29. ***Synema decoratum*** Tikader, 1960
- Idukki (Adarsh & Nameer, 2016)

30. ***Talaus opportunus*** (O. Pickard-Cambridge, 1873)
- Idukki (Adarsh & Nameer, 2016)

31. ***Thomisus andamanensis*** Tikader 1980
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki, Palakkad, Thrissur (Sebastian *et al.*, 2011)
- Kollam (Jose *et al.*, 2007)
- Kozhikode (Dhali *et al.*, 2019)

32. ***Thomisus keralae*** Biswas & Roy, 2005
- Idukki (Biswas & Roy, 2005a)
- Wayanad (Dhali & Sureshan, 2016)

33. ***Thomisus lobosus*** Tikader, 1965
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Sunil Jose & Sebastian, 2001b)
- Idukki (Mathew *et al.*, 2005)

- Kannur, Kasaragod (Jose *et al.*, 2018)
- Palakkad (Sebastian *et al.*, 2011)
- Thiruvananthapuram (Vishnudas *et al.*, 2021)
- Thrissur (Adarsh & Nameer, 2015)
- Wayanad (Rajeevan *et al.*, 2019)

34. ***Thomisus projectus*** Tikader, 1960
- Alappuzha (Malamel & Sudhikumar, 2020)
- Ernakulam (Ambily & Antony, 2016)
- Idukki (Sebastian *et al.*, 2011)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Vineetha & George, 2021)
- Palakkad (Shihabudeen *et al.*, 2022)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Rajeevan *et al.*, 2019)

35. ***Thomisus pugilis*** Stoliczka, 1869
- Alappuzha (Mathew *et al.*, 2014)
- Ernakulam (Sebastian *et al.*, 2005b)
- Kozhikode (Vineetha & George, 2021)
- Palakkad (Shihabudeen *et al.*, 2022)
- Thiruvananthapuram (Joseph & Premila, 2016)
- Thrissur (Smitha & Sudhikumar, 2020)
- Wayanad (Dhali & Sureshan, 2016)

36. ***Thomisus rishus*** Tikader, 1970
- Wayanad (Dhali & Sureshan, 2016)

37. ***Thomisus shillongensis*** Sen, 1963
- Wayanad (Shabnam *et al.*, 2021)

38. ***Thomisus spectabilis*** Doleschall, 1859
- Kannur (Vineetha & George, 2021)

39. ***Thomisus telanganaensis*** Pravalikha & Srinivasulu, 2015
- Wayanad (Rajeevan *et al.*, 2019)

40. ***Thomisus viveki*** Gajbe, 2004
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

41. ***Tmarus kotigeharus*** Tikader, 1963
- Idukki (Joseph *et al.*, 2017)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Wayanad (Joseph *et al.*, 2017)

42. ***Tmarus soricinus*** Simon, 1906
- Idukki, Wayanad (Joseph *et al.*, 2017)

43. ***Xysticus audax*** (Schrank, 1803)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

44. ***Xysticus bengalensis*** Tikader & Biswas, 1974
- Idukki, Wayanad (Joseph *et al.*, 2017)

45. ***Xysticus breviceps*** O. Pickard-Cambridge, 1885
- Idukki, Wayanad (Joseph *et al.*, 2017)
- Thiruvananthapuram (Asima *et al.*, 2020)

46. ***Xysticus cristatus*** (Clerck, 1757)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

47. ***Xysticus himalayaensis*** Tikader & Biswas, 1974
- Idukki (Sudhikumar *et al.*, 2005)
- Palakkad (Sunil Jose *et al.*, 2008)

XLII. Family Trachelidae

1. ***Utivarachna fukasawana*** Kishida, 1940
- Wayanad (Asalatha *et al.*, 2017a)

2. ***Utivarachna rama*** Chami-Kranon & Likhitrakarn, 2007
- Thrissur (Dhanya *et al.*, 2022)

XLIII. Family Uloboridae

1. ***Miagrammopes extensus*** Simon, 1889
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kottayam (Malamel & Samson, 2014)
- Malappuram (Fasila & Gafoor, 2021)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Pooja *et al.*, 2016)

2. ***Miagrammopes gravelyi*** Tikader, 1971
- Ernakulam (Tikader, 1971)

3. ***Miagrammopes sexpunctatus*** Simon, 1906
- Idukki, Wayanad (Joseph *et al.*, 2017)

4. ***Philoponella feroka*** (Bradoo, 1979)
- Alappuzha (Babu *et al.*, 2022)
- Kozhikode (Bradoo, 1979)
- Wayanad (Asalatha *et al.*, 2017a)

5. *Uloborus danolius* Tikader, 1969
- Alappuzha (Sudhikumar *et al.*, 2004)
- Ernakulam (Sebastian *et al.*, 2005a)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Kozhikode (Vineetha & George, 2021)
- Palakkad (Patel, 2003)
- Thrissur (Sebastian *et al.*, 2011)
- Wayanad (Sunil Jose, 2010)

6. *Uloborus glomosus* (Walckenaer, 1841)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)

7. *Uloborus khasiensis* Tikader, 1969
- Palakkad (Patel, 2003)
- Wayanad (Rajeevan *et al.*, 2019)

8. *Uloborus krishnae* Tikader, 1970
- Alappuzha (Sudhikumar *et al.*, 2004)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Jose *et al.*, 2018)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thrissur (Pooja *et al.*, 2016)
- Wayanad (Asalatha *et al.*, 2017a)

9. *Uloborus shendurneyensis* Asima, Sudhikumar & Prasad, 2021
- Kollam (Asima *et al.*, 2021b)

10. *Zosis geniculata* (Olivier, 1789)
- Alappuzha (Malamel & Sudhikumar, 2020)
- Idukki (Mathew *et al.*, 2005)
- Kannur, Kasaragod (Sumesh & Sudhikumar, 2020)
- Malappuram (Fasila & Gafoor, 2021)
- Palakkad (Sunil Jose *et al.*, 2008)
- Thiruvananthapuram (Asima *et al.*, 2020)
- Thrissur (Ramanujam *et al.*, 2015)
- Thrissur (Sebastian *et al.*, 2011)
- Wayanad (Sunil Jose, 2010)

XLIV. Family Zodariidae

1. *Asceua cingulata* (Simon, 1905)
- Idukki (Adarsh & Nameer, 2016)
- Wayanad (Joseph *et al.*, 2017)

2. *Hermippus gavi* Sankaran, Jobi, Joseph & Sebastian, 2014
- Idukki, Wayanad (Joseph *et al.*, 2017)
- Pathanamthitta (Sankaran *et al.*, 2014)

3. *Hermippus globosus* Sankaran, Jobi, Joseph & Sebastian, 2014
- Ernakulam (Sankaran *et al.*, 2014)

4. *Hermippus inflexus* Sankaran, Jobi, Joseph & Sebastian, 2014
- Ernakulam (Sankaran *et al.*, 2014)

5. *Suffasia keralaensis* Sudhikumar, Jocqué & Sebastian, 2009
- Malappuram (Sudhikumar *et al.*, 2009)

6. *Tropizodium kalami* Prajapati, Murthappa, Sankaran & Sebastian, 2016
- Ernakulam (Prajapati *et al.*, 2016b)

7. *Tropizodium kovvurense* (Reddy & Patel, 1993)
- Ernakulam (Sankaran *et al.*, 2019b)

8. *Tropizodium viridurbium* Prajapati, Murthappa, Sankaran & Sebastian, 2016
- Alappuzha (Malamel & Sudhikumar, 2020)

9. *Zodarion deccanense* (Tikader & Malhotra, 1976)
- Thrissur (Ramanujam *et al.*, 2015)

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The spider biodiversity of Kelkit Valley in Türkiye

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Abstract

Spider specimens were collected by using aspirator, sweep net, and pitfall traps from Kelkit Valley, located in Central Anatolia and Black Sea regions between April and November in 2019-2021. A total of 203 species belonging to 131 genera in 31 families were recorded from the study area. All identified species are new records for the study area. All specimens were labelled and preserved as museum material in Arachnology Museum of Niğde Ömer Halisdemir University.

Keywords: Spider, Fauna, Kelkit Valley, Türkiye.

Introduction

In the recent years, araneological studies in Türkiye increased. Despite this increase, there are still many regions of the country that remain insufficiently investigated. Up to now, 51153 species of 4318 genera of spiders have been described in the world (World Spider Catalog, 2023). There are only 1255 species, belonging to 55 families known from Türkiye (Demir & Seyyar, 2017; Danışman *et al.*, 2023). The aim of this study is to determine the spider biodiversity of Kelkit Valley of Türkiye.

Material and Methods

All specimens were collected from Kelkit Valley in Central Anatolia and Black Sea region by using aspirator, sweep net, and pitfall traps from 87 localities in the study area between April and November in 2019-2021 (Fig.1 and Table 1). The identification was made by means of a SZX61 Olympus stereomicroscope. Museum material was used

for the comparison and species identification. The collected specimens were labelled and preserved as museum material in Arachnology Museum of Niğde Ömer Halisdemir University (NOHUAM).

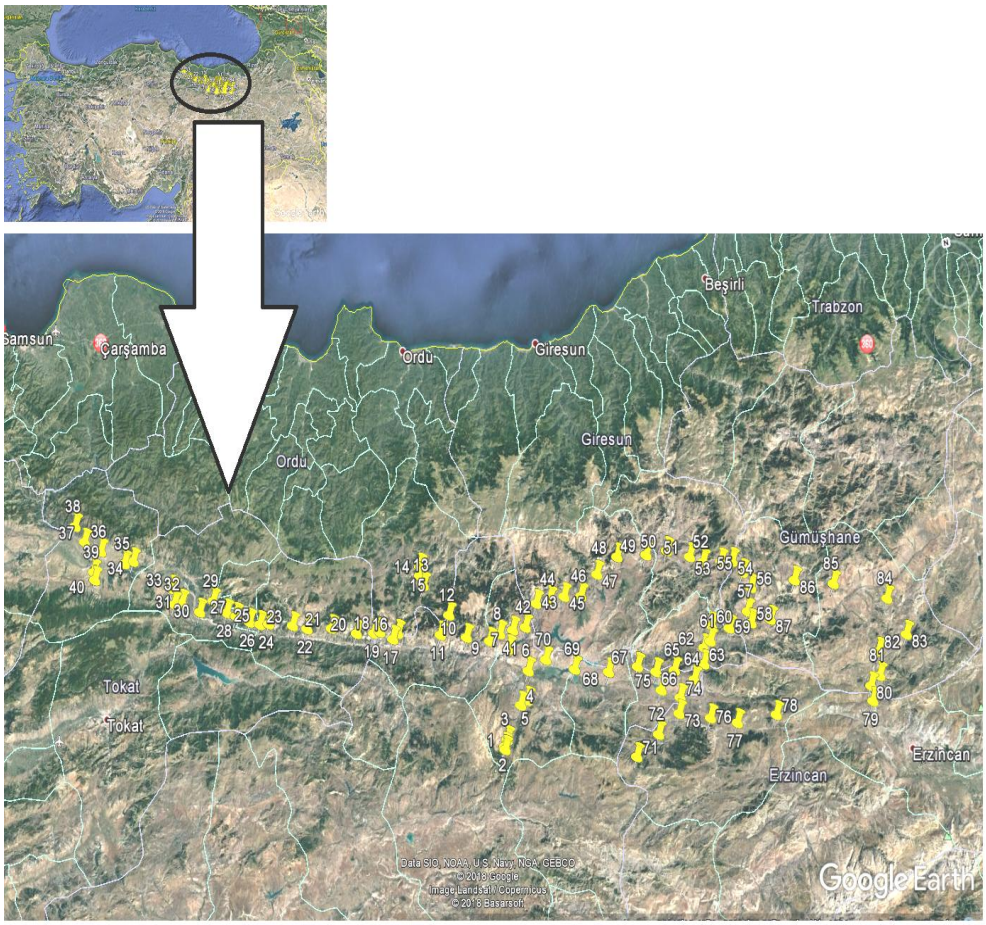

Fig. 1. Study area, Kelkit Valley, in Türkiye.

Table 1. Collecting localities in Kelkit Valley, Türkiye.

No.	Localities
1.	Sivas, Suşehri, Gelinbeli 1 (39°59'28.36"N, 37°58'48.41"E), 2010 m
2.	Sivas, Suşehri, Gelinbeli 2 (39°59'54.59"N, 37°58'52.70"E), 1844 m
3.	Sivas, Suşehri, Şarköy (40°00'41.88"N, 37°59'39.33"E), 1710 m
4.	Sivas, Suşehri, Kekeç (40°04'43.14"N, 38°03'57.88"E), 1291 m
5.	Sivas, Suşehri, Elmaseki village (40°05'8.32"N, 38°05'36.66"E), 1580 m
6.	Sivas, Suşehri, Gökçekaş village (40°09'0.53"N, 38°07'0.01"E), 964 m
7.	Sivas, Suşehri, Akçağıl village (40°12'40.28"N, 38°03'36.70"E), 810 m
8.	Sivas, Suşehri, Kesikbaş village (40°15'0.78"N, 38°02'11.59"E), 1282 m
9.	Sivas, Koyulhisar, Kılıçpınarı village (40°14'26.00"N, 37°59'40.02"E), 850 m
10.	Sivas, Koyulhisar, Kayaören village (40°15'48.94"N, 37°54'41.85"E), 772 m
11.	Sivas, Koyulhisar, Şeyhler village (40°17'08.97"N, 37°49'01.19"E), 722 m
12.	Sivas, Koyulhisar, Taşpınar village (40°19'27.25"N, 37°51'41.08"E), 1450 m
13.	Sivas, Mesudiye, Güneyce village (40°24'26.05"N, 37°47'09.10"E), 1582 m
14.	Sivas, Mesudiye, Sarıca village (40°25'51.42"N, 37°46'43.86"E), 1437 m
15.	Sivas, Mesudiye, Bahçe village (40°27'04.46"N, 37°47'04.84"E), 1137 m
16.	Sivas, Koyulhisar, Sugözü village (40°18'58.04"N, 37°39'39.21"E), 650 m
17.	Sivas, Koyulhisar, Gökdere village (40°18'21.40"N, 37°38'19.49"E), 691 m

18.	Sivas, Koyulhisar, Dağlık alan (40°19'48.53"N, 37°35'42.62"E), 1057 m
19.	Tokat, Reşadiye, Umurca village (40°19'52.33"N, 37°34'20.55"E), 614 m
20.	Tokat, Reşadiye, Yuvacık village yol ayrımı (40°20'29.18"N, 37°30'28.78"E), 587 m
21.	Tokat, Reşadiye, Köklü village yol ayrımı (40°22'05.87"N, 37°25'05.94"E), 608 m
22.	Tokat, Reşadiye, Soğukpınar village (40°22'57.59"N, 37°19'39.35"E), 584 m
23.	Tokat, Reşadiye, Çayırpınar village (40°23'55.08"N, 37°16'31.95"E), 500 m
24.	Tokat, Reşadiye, Çakmak village (40°25'01.06"N, 37°11'18.32"E), 424 m
25.	Tokat, Reşadiye, Darıdere village (40°25'16.55"N, 37°09'18.31"E), 493 m
26.	Tokat, Niksar, Mutluca village (40°25'58.63"N, 37°07'02.93"E), 445 m
27.	Tokat, Niksar, Yeşilçam village (40°27'15.05"N, 37°04'14.96"E), 488 m
28.	Tokat, Niksar, Muhtardüzü village civarı (40°28'06.99"N, 37°02'13.65"E), 538 m
29.	Tokat, Niksar, Arpaören village civarı (40°30'10.62"N, 36°59'37.36"E), 512 m
30.	Tokat, Niksar, Korulu village civarı (40°29'10.08"N, 36°56'15.72"E), 415 m
31.	Tokat, Niksar, Boğazbaşı village 1 (40°31'02.76"N, 36°52'31.53"E), 507 m
32.	Tokat, Niksar, Boğazbaşı village 2 (40°31'07.71"N, 36°50'48.32"E), 734 m
33.	Tokat, Niksar, Beyçayırı village (40°33'18.60"N, 36°50'50.95"E), 430 m
34.	Tokat, Erbaa, around the Tepekışla Dam (40°38'31.45"N, 36°42'53.17"E), 373 m
35.	Tokat, Erbaa, Ağcalan village (40°38'31.20"N, 36°40'52.66"E), 538 m
36.	Tokat, Erbaa, arround the Kelkit stream (40°41'3.95"N, 36°35'49.47"E), 207 m
37.	Tokat, Erbaa, Tosunlar village (40°42'59.82"N, 36°32'23.80"E), 200 m
38.	Tokat, Erbaa, Kaleköy (40°45'29.62"N, 36°30'47.12"E), 313 m
39.	Tokat, Erbaa, Alacabal village (40°38'28.93"N, 36°33'34.10"E), 311 m
40.	Tokat, Erbaa, Ağcakeçi village (40°37'20.69"N, 36°33'37.99"E), 415 m
41.	Sivas, Suşehri, Arpacı village (40°15'01.75"N, 38°05'14.10"E), 861 m
42.	Sivas, Suşehri, around the Çamlıca Dam (40°14'56.34"N, 38°08'7.43"E), 756 m
43.	Giresun, Şebinkarahisar, Arslanşah village (40°17'42.33"N, 38°11'30.74"E), 956 m
44.	Giresun, Şebinkarahisar, Taşcılı village (40°17'43.02"N, 38°14'40.44"E), 1160 m
45.	Giresun, Şebinkarahisar, Çağlayan village (40°17'34.22"N, 38°17'57.45"E), 984 m
46.	Giresun, Şebinkarahisar, Ekecek village (40°16'56.05"N, 38°21'42.41"E), 1373 m
47.	Giresun, Şebinkarahisar, Tamzara village (40°19'17.08"N, 38°26'10.38"E), 1200 m
48.	Giresun, Şebinkarahisar, Çamlıbel village (40°20'49.80"N, 38°31'24.41"E), 1125 m
49.	Giresun, Şebinkarahisar, Güneygören village (40°19'57.65"N, 38°37'56.91"E), 1438 m
50.	Giresun, Alucra, Mesudiye village (40°19'43.82"N, 38°42'41.81"E), 1650 m
51.	Giresun, Alucra (40°17'58.96"N, 38°47'32.87"E), 1518 m
52.	Giresun, Alucra, Gürbulak village (40°16'44.38"N, 38°50'17.16"E), 1660 m
53.	Giresun, Alucra, Hacıhasan village (40°16'3.66"N, 38°54'16.14"E), 1700 m
54.	Giresun, Alucra, Şiran road (40°15'39.74"N, 38°56'47.29"E), 1635 m
55.	Gümüşhane, Şiran, Alucra-Şiran road (40°13'44.97"N, 38°58'39.95"E), 1470 m
56.	Gümüşhane, Şiran, Aksaray village (40°11'22.31"N, 38°59'51.77"E), 1350 m
57.	Gümüşhane, Sinanlı village (40°08'19.09"N, 38°57'56.99"E), 1316 m
58.	Gümüşhane, Güreşköy village (40°06'39.59"N, 38°58'15.07"E), 1190 m
59.	Giresun, ÇamoluN, Yenice village (40°06'50.37"N, 38°53'14.24"E), 1115 m
60.	Giresun, ÇamoluN, Kaledere (40°07'50.10"N, 38°49'22.72"E), 1120 m
61.	Giresun, ÇamoluN, Pınarlı (40°05'50.73"N, 38°48'23.20"E), 1276 m
62.	Giresun, ÇamoluN, Gölova road (40°05'13.76"N, 38°46'42.16"E), 1120 m
63.	Sivas, Gölova, Arslanca village (40°03'4.28"N, 38°45'56.40"E), 1185 m
64.	Sivas, Gölova, Karayakup village (40°01'23.04"N, 38°43'9.47"E), 1224 m
65.	Sivas, Gölova, Bozat village civarı (40°03'23.14"N, 38°39'10.89"E), 1460 m
66.	Sivas, Gölova, around the Gölova Dam (40°03'56.07"N, 38°35'5.26"E), 1280 m
67.	Sivas, Gölova, Boğazköy (40°05'21.18"N, 38°31'15.03"E), 1230 m
68.	Sivas, Akıncılar, Ortaköy (40°05'44.69"N, 38°24'39.71"E), 1230 m
69.	Sivas, Akıncılar, Yağlıçayır (40°07'26.00"N, 38°17'17.88"E), 850 m
70.	Sivas, Suşehri, around the Kılıçkaya Dam (40°09'49.16"N, 38°11'18.11"E), 850 m

71.	Erzincan, Refahiye, Gemecik village (39°53'29.83"N, 38°27'12.75"E), 1845 m
72.	Erzincan, Refahiye, Tülü village (39°55'34.29"N, 38°32'57.24"E), 1575 m
73.	Erzincan, Refahiye, Ortagöze village (39°57'30.09"N, 38°38'19.82"E), 1555 m
74.	Erzincan, Refahiye, Kanlıtaş village (39°59'33.86"N, 38°39'17.90"E), 1585 m
75.	Sivas, Gölova, Çobanlı village (40°01'16.77"N, 38°35'26.42"E), 1280 m
76.	Erzincan, on the Refahiye road (39°55'41.34"N, 38°45'0.32"E), 1550 m
77.	Erzincan, Refahiye, Ulucak Village (39°54'0.12"N, 38°50'40.60"E), 1670 m
78.	Erzincan, Refahiye, on the Erzincan road (39°53'31.10"N, 38°59'32.81"E), 1890 m
79.	Erzincan, on the Kelkit road 1 (39°51'21.06"N, 39°21'31.88"E), 1850 m
80.	Erzincan, on the Kelkit road 2 (39°53'27.38"N, 39°21'44.13"E), 2100 m
81.	Gümüşhane, Kelkit, Yeniyol village (39°54'26.19"N, 39°24'15.11"E), 1810 m
82.	Gümüşhane, Kelkit, Balıklı village (39°57'42.03"N, 39°25'10.96"E), 1680 m
83.	Gümüşhane, Kelkit, Yukarıözlüce village (39°58'47.29"N, 39°32'16.39"E), 1640 m
84.	Gümüşhane, Kelkit, Tütenli village (40°04'22.49"N, 39°29'39.60"E), 1580 m
85.	Gümüşhane, Şiran, Kılıçtaşı village (40°08'33.72"N, 39°18'25.87"E), 1430 m
86.	Gümüşhane, Şiran, Karaşeyh village (40°10'37.93"N, 39°09'53.98"E), 1455 m
87.	Gümüşhane, Şiran, Seydibaba village (Tomara waterfall) (40°06'20.95"N, 39°02'42.28"E), 1540 m

Results and Discussion

About 2500 adult spiders of 203 species in 31 families determined from the study area (Table 2). Most species rich families were Gnaphosidae (43), Salticidae (28), Thomisidae (22), Lycosidae (19), and Araneidae (16), respectively. According to the result of this study, the spider diversity in the study area contains nearly 17% at the species level of 31 families of Turkish spiders (Fig. 2).

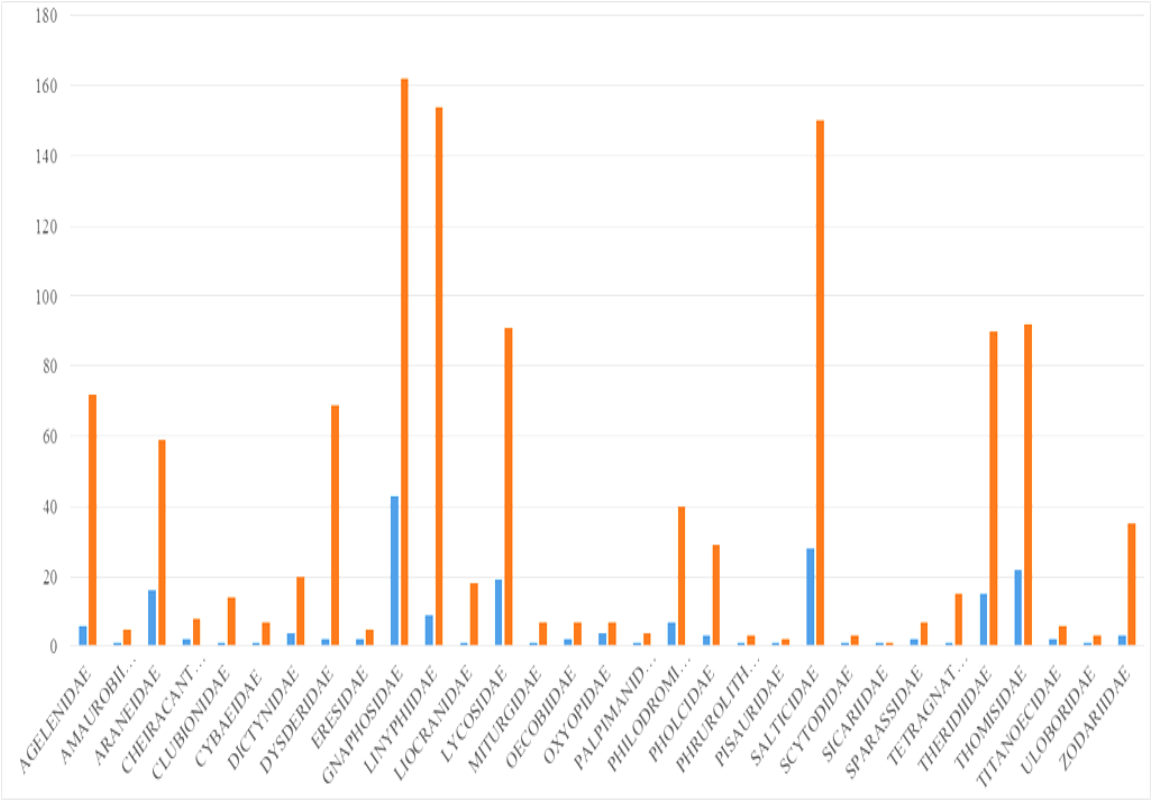

Fig. 2. Comparison of species of 31 spider families in Türkiye (orange) and Kelkit Valley (blue).

Table 2. The list of spider species collected from Kelkit Valley in Türkiye.

	Spider Families and Species	Collecting Localities
Family AGELENIDAE		
1	*Agelena labyrinthica* (Clerck, 1757)	Loc. 6- 27.V.2019 (2♀), 18.VII.2019 (1♂); Loc. 11- 21.VI. 2020 (2♀); Loc. 33- 09.VII.2021 (2♂); Loc. 45- 22.VII.2020 (1♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀). Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀).
2	*Agelena orientalis* C.L. Koch, 1837	Loc. 19- 26.V. 2019 (1♀); Loc. 23- 28.V. 2020 (1♀); Loc. 27- 08.IV. 2021 (1♂); Loc. 17- 23.IV. 2021 (1♂).
3	*Maimuna vestita* (C.L. Koch, 1841)	Loc.42- 14.IX.2019 (2♂,3♀); Loc. 30- 12.IX.2020 (1♂,3♀).
4	*Persiscape gideoni* (Levy, 1996)	Loc. 18- 12.VII. 2019 (2♀), 11.VII.2021 (1♂,1♀); Loc. 35- 23.VII. 2020 (3♀).
5	*Tegeneria argaeica* Nosek, 1905	Loc. 87- 15. IX. 2019 (3♀), 26.VIII.2020 (2♂,1♀); Loc. 35- 15.VIII. 2021 (1♀).
6	*Textrix denticulata* (Olivier, 1789)	Loc. 59- 31. V. 2019 (1♂,2♀); Loc. 64-28.V.2020 (1♀); Loc. 33- 14.VII.2019 (2♂,1♀); Loc. 87- 27.IX. 2021 (3♀).
Family AMAUROBIIDAE		
1	*Amaurobius fenestralis* (Ström, 1768)	Loc. 77- 28.VII. 2020 (1♂,4♀); Loc. 87-02.VIII. 2021 (1♂,3♀).
Family ARANEIDAE		
1	*Aculepeira armida* (Savigny, 1825)	Loc. 1- 01.V.2019 (2♀), 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (2♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀); Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀).
2	*Aculepeira ceropegia* (Walckenaer, 1802)	Loc. 43- 03.V.2019 (3♀), 30.V.2020 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 68- 27.VIII.2020 (1♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 43- 22.VIII.2020 (1♀), 29.VII.2021 (2♀); Loc. 45- 17.VIII.2019 (1♀), 29.VII.2020 (2♀); Loc. 6- 24.VI.2021 (1♂,1♀), Loc. 7- 08.VII.2021 (1♂,1♀).
3	*Agalenatea redii* (Scopoli, 1763)	Loc. 2- 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (2♂, 1♀); Loc. 45-34 17.VIII.2019 (1♀), 29.VII.2020 (1♀); Loc. 6- 24.VI.2021 (1♂,1♀), Loc. 7-08.VII.2021 (2♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 34- 22.VIII.2020 (1♀), 29.VII.2021 (2♀) Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (2♀), 02.VIII.2021 (2♀); Loc. 68- 27.VIII.2020 (1♂,1♀); Loc. 57- 27.VI.2021 (2♂,1♀); Loc. 43-22.VIII.2020 (1♀), 29.VII.2021 (1♀).
4	*Araneus diadematus* (Clerck, 1757)	Loc. 7- 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀), 25.VII. 2020 (1♂,2♀); Loc. 13- 29.V. 2021 (2♀); Loc. 43- 27.VIII.2020 (2♂,1♀); Loc. 47- 17.VIII.2019 (1♀), 29.VII.2020 (1♀); Loc. 5- 24.VI.2021 (1♂,1♀), Loc. 6- 08.VII.2021 (2♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (2♀). Loc. 25- 17.VIII.2019 (1♀), 29.VII.2020 (2♀), 02.VIII.2021 (2♀); Loc. 68-27.VIII.2020 (1♂,1♀); Loc. 57- 27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (1♀); Loc. 56- 27.VI.2021 (1♂,1♀); Loc. 62- 24.VIII.2020 (1♂,3♀).
5	*Araniella cucurbitina* (Clerck, 1757)	Loc. 1- 01.V.2019 (2♀), 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (2♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀). Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀).
6	*Araniella opisthographa* (Kulczyński, 1905)	Loc. 1- 27.V.2019 (1♂,1♀), 20.VI.2020 (1♂,1♀); Loc. 3- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (2♂,1♀); Loc. 59-27.VI.2021 (1♂,1♀); Loc. 35- 22.VIII.2020 (1♂,1♀), 29.VII.2021 (1♀). Loc. 27-17.VIII.2019 (1♀), 29.VII.2020 (1♂,1♀), 02.VIII.2021 (1♀).

7	*Argiope bruennichi* (Scopoli, 1772)	Loc. 1- 27.V.2019 (1♂), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (3♀); Loc. 43- 27.VIII.2020 (1♂,1♀); Loc. 45-17.VIII.2019 (1♀), 29.VII.2020 (1♀); Loc. 5- 24.VI.2021 (1♂,2♀), Loc. 7-37 08.VII.2021 (1♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 35- 22.VIII.2020 (1♀), 29.VII.2021 (2♀).
8	*Argiope lobata* (Pallas, 1772)	Loc. 12- 29.V. 2021 (3♀); Loc. 41-27.VIII.2020 (1♂,4♀); Loc. 47- 17.VIII.2019 (5♀), 29.VII.2020 (2♀); Loc. 5-24.VI.2021 (1♂,3♀), Loc. 6- 08.VII.2021 (2♂, 1♀); Loc. 36- 22.VIII.2020 (2♀), 29.VII.2021 (2♀). Loc. 25- 17.VIII.2019 (5♀), 02.VIII.2021 (3♀); Loc. 68-27.VIII.2020 (1♂,1♀); Loc. 56- 27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (4♀).
9	*Cyclosa conica* (Pallas, 1772)	Loc. 25- 17.VIII.2019 (2♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 67- 27.VIII.2020 (1♂,1♀); Loc. 57- 27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (1♀).
10	*Gibbaranea bituberculata* (Walckenaer, 1802)	Loc. 34- 22.VIII.2020 (1♀), 29.VII.2021 (3♀). Loc. 26- 17.VIII.2019 (1♀), 02.VIII.2021 (2♀); Loc. 43- 22.VIII.2020 (1♀), 29.VII.2021 (1♀); Loc. 57- 27.VI.2021 (2♂,1♀); Loc. 69- 27.VIII.2020 (1♂,1♀); Loc. 87- 02.VIII.2021 (1♂,3♀).
11	*Hypsosinga pygmaea* (Sundevall, 1831)	Loc. 1- 14.VII. 2019 (1♂,1♀); Loc. 12-29.V. 2021 (2♀); Loc. 41- 27.VIII.2020 (1♂, 1♀).
12	*Hypsosinga sanguinea* (C.L. Koch, 1844)	Loc. 26- 14.VII. 2019 (1♂,1♀); Loc. 12-29.V. 2021 (2♀); Loc. 41- 27.VIII.2020 (1♂,1♀).
13	*Larinioides cornutus* (Clerck, 1757)	Loc. 59- 15.IX. 2020 (2♂,1♀); Loc. 60-15.IX. 2020 (2♀); Loc. 61- 15.IX. 2020 (1♂,1♀). Loc. 66- 29.VII. 2021 (1♀); Loc. 67- 29.VII. 2021 (2♀); Loc. 68- 29.VII. 2021 (1♂,1♀).
14	*Mangora acalypha* (Walckenaer, 1802)	Loc. 83- 20.VIII.2019 (2♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 84- 27.VIII.2020 (1♂,1♀); Loc. 85- 27.VI.2021 (2♂,1♀).
15	*Neoscona adianta* (Walckenaer, 1802)	Loc. 9- 29.V. 2021 (3♀); Loc. 12-27.VIII.2020 (1♂,4♀); Loc. 13- 17.VIII.2019 (5♀), 29.VII.2020 (2♀); Loc. 64-24.VI.2021 (1♂,3♀), Loc. 65- 08.VII.2021 (2♂, 1♀); Loc. 67- 22.VIII.2020 (2♀), 29.VII.2021 (2♀). Loc. 69- 17.VIII.2019 (5♀), 02.VIII.2021 (3♀); Loc. 70-27.VIII.2020 (1♂,1♀); Loc. 81- 27.VI.2021 (2♂,1♀); Loc. 84- 22.VIII.2020 (2♀), 29.VII.2021 (4♀); Loc. 87- 29.VII. 2021 (1♂, 1♀).
16	*Zygiella montana* (C.L. Koch, 1834)	Loc. 11- 29.V. 2021 (2♀); Loc. 14-27.VIII.2020 (2♂,4♀); Loc. 23- 17.VIII.2019 (2♀), 29.VII.2020 (1♀); Loc. 62-24.VI.2021 (1♂,3♀), Loc. 65- 08.VII.2021 (2♂, 1♀); Loc. 67- 22.VIII.2020 (2♀), 29.VII.2021 (2♀). Loc. 69- 17.VIII.2019 (4♀), 02.VIII.2021 (1♀); Loc. 70-27.VIII.2020 (1♂,1♀); Loc. 81- 27.VI.2021 (2♂, 1♀); Loc. 84- 22.VIII.2020 (2♀), 29.VII.2021 (2♀); Loc. 87- 29.VII. 2021 (2♂, 1♀).
Family CHEIRACANTHIIDAE		
1	*Cheiracanthium erraticum* (Walckenaer, 1802)	Loc. 12- 29.V. 2021 (2♀); Loc. 41-27.VIII.2020 (1♂,2♀); Loc. 47- 17.VIII.2019 (3♀), 29.VII.2020 (2♀); Loc. 5-24.VI.2021 (1♂,1♀), Loc. 6- 08.VII.2021 (2♂, 1♀).
2	*Cheiracanthium pennyi* O. Pickard-Cambridge, 1873	Loc. 8- 25.VI.2021 (1♂,1♀), Loc. 10-09.VII.2021 (2♂,1♀); Loc. 36- 22.VIII.2020 (1♀), 29.VII.2021 (2♀). Loc. 25-17.VIII.2019 (2♀), 02.VIII.2021 (2♀); Loc. 68- 27.VIII.2020 (1♂,2♀); Loc. 56-27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (2♀).
Family CLUBIONIDAE		
1	*Clubiona caerulescens* L. Koch, 1867	Loc. 26- 17.VIII.2019 (2♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 67- 27.VIII.2020 (1♀); Loc. 57- 27.VI.2021 (1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (1♀).

Family CYBAEIDAE		
1	*Cedicus flavipes* Simon, 1875	Loc. 87- 30.V. 2019 (1♂), 28.VI. 2021 (2♂).
Family DICTYNIDAE		
1	*Brigittea latens* (Fabricius, 1775)	Loc. 46- 27.VII. 2020 (1♂,1♀); Loc. 87- 06.XII. 2020 (1♂), 02.VIII. 2021 (1♂, 1♀).
2	*Dictyna arundinacea* (Linnaeus, 1758)	Loc. 1- 01.V.2019 (3♀), 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 87- 02.VIII. 2021 (1♂, 1♀).
3	*Emblyna annulipes* (Blackwall, 1846)	Loc. 1- 27.V.2019 (2♂,1♀), 27.V. 2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 87- 02.VIII. 2021 (1♂,1♀).
4	*Lathys humilis* (Blackwall, 1855)	Loc. 1- 08.IV.2021 (2♀); Loc. 2- 27.V. 2021 (2♀); Loc. 48- 25.VIII. 2020 (1♂, 1♀); Loc. 87- 02.VIII. 2021 (1♂,1♀).
Family DYSDERIDAE		
1	*Dysdera crocata* C.L. Koch, 1838	Loc. 2- 17. VIII. 2019 (2♂,2♀), 25. VII.2020 (3♀), 24. VI.2021 (1♂,2♀); Loc. 22- 14. VIII. 2021 (1♂,2♀); Loc. 73- 13. IX. 2020 (2♀); Loc. 87- 21. VIII.2019 (1♂,3♀), 09.IX. 2021 (2♀).
2	*Dysdera* sp.	Loc. 2- 17. VIII. 2019 (2♂,2♀), 08.VII.2021 (1♂,2♀).
Family ERESIDAE		
1	*Eresus kollari* Rossi, 1846	Loc. 78- 28.VII. 2020 (1♂,1♀); Loc. 87- 02.VIII. 2021 (1♂,1♀).
2	*Stegodyphus lineatus* (Latreille, 1817)	Loc. 16- 03.V.2021 (2♀).
Family GNAPHOSIDAE		
1	*Anagraphis pallens* Simon, 1893	Loc. 12- 29.V. 2021 (2♀); Loc. 41- 27.VIII.2020 (2♀); Loc. 47- 17.VIII.2019 (1♀); Loc. 5- 24.VI.2021 (1♀).
2	*Aphantaulax trifasciata* (O. Pickard-Cambridge, 1872)	Loc. 26- 17.VIII.2019 (2♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀).
3	*Berlandina nabozhenkoi* Ponomarev & Tsvetkov, 2006	Loc. 5- 03. V. 2019 (2♂).
4	*Callilepis cretica* (Roewer, 1928)	Loc. 29- 30.V. 2019 (2♂,2♀); Loc. 87- 30.V. 2019 (2♂,3♀),16. VIII. 2021 (2♀).
5	*Callilepis nocturna* (Linnaeus, 1758)	Loc. 52- 27.V.2019 (2♀), 18.VII.2019 (1♂); Loc. 74- 21.VI. 2020 (2♀); Loc. 86- 22.VII.2020 (1♂,1♀).
6	*Callilepis schuszteri* (Herman, 1879)	Loc. 2-24.VI.2021 (1♂,2♀).
7	*Cesonia aspida* Chatzaki, 2002	Loc. 74-26.VII.2020 (1♂,2♀).
8	*Civizelotes caucasius* (L. Koch, 1866)	Loc. 87- 15. IX. 2019 (3♀), 26.VIII.2020 (2♂,1♀); Loc. 35- 15.VIII. 2021 (1♀). Loc. 59- 31. V. 2019 (1♂,2♀); Loc. 64- 28.V.2020 (1♀); Loc. 33- 14.VII.2019 (2♂,1♀); Loc. 87- 27.IX. 2021 (3♀). Loc. 1- 01.V.2019 (2♀), 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♂,2♀); Loc. 44- 27.VIII.2020 (2♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀). Loc. 26- 17.VIII.2019 (2♂,1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀). Loc. 43- 03.V.2019 (3♀), 30.V.2020 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀).
9	*Cryptodrassus creticus* Chatzaki, 2002	Loc. 26- 17.VIII.2019 (1♀), 02.VIII.2021 (2♀); Loc. 43- 22.VIII.2020 (1♀).
10	*Drassodes lapidosus* (Walckenaer, 1802)	Loc. 23- 28.V. 2020 (1♂,1♀); Loc. 27- 08.IV. 2021 (1♂); Loc. 17- 23.IV. 2021 (1♂). Loc. 42- 14.IX.2019 (2♂,3♀); Loc. 30- 12.IX.2020 (1♂,3♀). Loc. 18- 12.VII. 2019 (2♀), 11.VII.2021 (1♂,1♀); Loc. 35- 23.VII. 2020 (1♂,3♀). Loc. 87- 15. IX. 2019 (3♀), 26.VIII.2020 (2♂,1♀); Loc. 35- 15.VIII. 2021 (1♀). Loc. 59- 31. V. 2019 (1♂,2♀); Loc. 64- 28.V.2020 (1♀); Loc. 33- 14.VII.2019 (2♂,2♀); Loc. 87- 27.IX. 2021 (3♀). Loc. 1- 01.V.2019 (2♀), 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (1♂,2♀); Loc. 44- 27.VIII.2020

		(2♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀). Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀). Loc. 43- 03.V.2019 (3♀), 30.V.2020 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (1♂,2♀); Loc. 68- 27.VIII.2020 (1♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀);27- 17.VIII.2019 (1♀), 29.VII.2020 (1♂,1♀), 02.VIII.2021 (1♀). Loc. 1- 27.V.2019 (1♂), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (3♀); Loc. 43- 27.VIII.2020 (1♂,1♀); Loc. 45- 17.VIII.2019 (1♀), 29.VII.2020 (1♀); Loc. 5- 24.VI.2021 (1♂,2♀), Loc. 7- 08.VII.2021 (1♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 35- 22.VIII.2020 (1♀), 29.VII.2021 (2♀). Loc. 12- 29.V. 2021 (3♀); Loc. 41- 27.VIII.2020 (1♂,4♀); Loc. 47- 17.VIII.2019 (5♀), 29.VII.2020 (2♀); Loc. 5- 24.VI.2021 (1♂,3♀), Loc. 6- 08.VII.2021 (2♂,1♀); Loc. 36- 22.VIII.2020 (1♂,2♀).
11	*Drassodes lutescens* (C.L. Koch, 1839)	27.VI.2021 (1♂,1♀);27- 17.VIII.2019 (1♀), 29.VII.2020 (1♂,1♀), 02.VIII.2021 (1♀). Loc. 1- 27.V.2019 (1♂), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (3♀); Loc. 43- 27.VIII.2020 (1♂,1♀); Loc. 45- 17.VIII.2019 (1♀), 29.VII.2020 (1♀); Loc. 5- 24.VI.2021 (1♂,2♀).
12	*Drassodes pubescens* (Thorell, 1856)	Loc. 87- 27.IX. 2021 (3♀). Loc. 1- 01.V.2019 (2♀), 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (2♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀).
13	*Drassyllus crimeaensis* Kovblyuk, 2003	Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 43- 22.VIII.2020 (1♀), 29.VII.2021 (2♀). Loc. 7- 08.VII.2021 (1♂,1♀). Loc. 2- 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (2♂,1♀); Loc. 45- 17.VIII.2019 (1♀), 29.VII.2020 (1♀); Loc. 6- 24.VI.2021 (1♂,1♀), Loc. 7- 08.VII.2021 (2♂, 1♀); Loc. 57- 27.VI.2021 (1♂,1♀).
14	*Drassyllus praeficus* (L. Koch, 1866)	Loc. 6- 27.V.2019 (2♀), 18.VII.2019 (1♂); Loc. 11- 21.VI. 2020 (2♀); Loc. 33- 09.VII.2021 (2♂); Loc. 44- 27.VIII.2020 (2♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀). Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀). Loc. 25- 17.VIII.2019 (2♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 67- 27.VIII.2020 (1♂,1♀); Loc. 57- 27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (1♀).
15	*Gnaphosa dolosa* Herman, 1879	Loc. 2- 27.V. 2021 (2♀); Loc. 57- 27.VI.2021 (1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀). Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (2♀), 02.VIII.2021 (1♀).
16	*Gnaphosa montana* (L. Koch, 1866)	Loc. 1- 01.V.2019 (2♀), 27.V.2019 (1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀).
17	*Gnaphosa opaca* Herman, 1879	Loc. 25- 22.VIII.2020 (2♀), 29.VII.2021 (2♀). Loc. 36- 17.VIII.2019 (5♀), 02.VIII.2021 (3♀).
18	*Haplodrassus dalmatensis* (L. Koch, 1866)	Loc. 6- 24.VI.2021 (1♂, 1♀), Loc. 7- 08.VII.2021 (1♂,1♀). Loc. 2- 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (2♂, 1♀); Loc. 45- 17.VIII.2019 (1♀), 29.VII.2020 (1♀); Loc. 62- 24.VIII.2020 (1♂,2♀).
19	*Haplodrassus invalidus* (O. Pickard-Cambridge, 1872)	Loc. 2- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (2♂, 1♀); Loc. 57- 27.VI.2021 (1♂,1♀).
20	*Haplodrassus morosus* (O. Pickard-Cambridge, 1872)	Loc. 41- 27.VIII.2020 (1♂,1♀); Loc. 47- 17.VIII.2019 (2♀), 29.VII.2020 (1♀); Loc. 5- 24.VI.2021 (1♂, 1♀), Loc. 6- 08.VII.2021 (2♂,1♀); Loc. 36- 22.VIII.2020 (2♀).
21	*Haplodrassus signifer* (C.L. Koch, 1839)	Loc. 34- 22.VIII.2020 (1♂, 2♀), 29.VII.2021 (1♀). Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀). Loc. 43- 03.V.2019 (3♀), 30.V.2020 (1♂, 1♀), 20.VI.2020 (1♂, 1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 68- 27.VIII.2020 (1♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 43- 22.VIII.2020 (1♂,1♀),

		29.VII.2021 (2♀). Loc. 45- 17.VIII.2019 (1♀), 29.VII.2020 (2♀); Loc. 6- 24.VI.2021 (1♂,1♀), Loc. 7- 08.VII.2021 (1♂,1♀). Loc. 2- 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (2♂,1♀); Loc. 45- 17.VIII.2019 (1♀), 29.VII.2020 (1♀); Loc. 6- 24.VI.2021 (1♂,1♀), Loc. 7- 08.VII.2021 (2♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 34- 22.VIII.2020 (1♀), 29.VII.2021 (2♀) Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (2♀), 02.VIII.2021 (2♀); Loc. 68- 27.VIII.2020 (1♂,1♀); Loc. 57- 27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (1♀), 29.VII.2021 (1♀). Loc. 7- 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀), 25.VII. 2020 (2♀,1♂); Loc. 13- 29.V. 2021 (2♀); Loc. 43- 27.VIII.2020 (2♂,1♀); Loc. 47- 17.VIII.2019 (1♀), 29.VII.2020 (1♀); Loc. 5- 24.VI.2021 (1♂,1♀), Loc. 6- 08.VII.2021 (2♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (2♀). Loc. 25- 17.VIII.2019 (1♀), 29.VII.2020 (2♀), 02.VIII.2021 (2♀); Loc. 68- 27.VIII.2020 (1♂,1♀); Loc. 57- 27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (1♀); Loc. 56- 27.VI.2021 (1♂,1♀).
22	*Kishidaia conspicua* (L. Koch, 1866)	Loc. 3- 24.V.2019 (2♀).
23	*Marinarozelotes lyonneti* (Audouin, 1825)	Loc. 3- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (1♀); Loc. 59- 27.VI.2021 (1♀); Loc. 35- 22.VIII.2020 (1♀).
24	*Marinarozelotes malkini* (Platnick & Murphy, 1984)	Loc. 2- 27.V. 2021 (1♀); Loc. 43- 27.VIII.2020 (1♀); Loc. 57- 27.VI.2021 (1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀).
25	*Micaria albovittata* (Lucas, 1846)	Loc. 5- 27.V.2019 (1♂, 2♀), 18.VII.2019 (1♂); Loc. 12- 21.VI. 2020 (2♀); Loc. 36- 09.VII.2021 (2♂); Loc. 45- 22.VII.2020 (1♂,1♀); Loc. 34- 22.VIII.2020 (1♂, 2♀), 29.VII.2021 (1♀). Loc. 26- 17.VIII.2019 (1♀).
26	*Micaria coarctata* (Lucas, 1846)	Loc. 1- 01.V.2019 (3♀), 27.V.2019 (1♂,1♀), 20.VI.2020 (1♂,2♀); Loc. 2- 27.V. 2021 (2♀); Loc. 33- 14.VII.2019 (1♀,2♂); Loc. 87- 27.IX. 2021 (2♀).
27	*Nomisia aussereri* (L. Koch, 1872)	Loc. 43- 17.IX.2019 (1♂, 1♀); Loc. 45- 17.IX.2019 (1♀), 14.IX.2020 (1♀); Loc. 5- 14.IX.2019 (1♂, 2♀), Loc. 7- 15.IX.2021 (1♂, 1♀); Loc. 57- 12.IX.2021 (1♂,1♀); Loc. 35- 13.IX.2020 (1♀), 24.X.2021 (2♀). Loc. 12- 04.X. 2021 (2♀); Loc. 41- 05.X.2020 (1♂, 2♀).
28	*Nomisia conigera* (Spassky, 1941)	Loc. 45- 22.VIII.2020 (1♀), 29.VII.2021 (1♀); Loc. 57- 27.VI.2021 (2♂,1♀); Loc. 69- 27.VIII.2020 (1♂,1♀); Loc. 87- 02.VIII.2021 (1♂,2♀).
29	*Nomisia exornata* (C.L. Koch, 1839)	Loc. 6- 24.VI.2021 (1♂,1♀), Loc. 7- 08.VII.2021 (1♂,1♀). Loc. 2- 27.V.2019 (2♂,1♀), 20.VI.2020 (1♀); Loc. 44- 27.VIII.2020 (2♂,1♀); Loc. 45- 17.VIII.2019 (1♀), 29.VII.2020 (1♀); Loc. 6- 24.VI.2021 (1♂,1♀), Loc. 7- 08.VII.2021 (1♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 34- 22.VIII.2020 (1♀), 29.VII.2021 (2♀) Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (2♀).
30	*Nomisia ripariensis* (O. Pickard-Cambridge, 1872)	Loc. 1- 27.V.2019 (1♂,1♀), 20.VI.2020 (1♂,1♀); Loc. 3- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (2♂,1♀); Loc. 59- 27.VI.2021 (1♂,1♀); Loc. 35- 22.VIII.2020 (1♂,1♀), 29.VII.2021 (1♀). Loc. 27- 17.VIII.2019 (1♀), 29.VII.2020 (1♂,1♀), 02.VIII.2021 (1♀). Loc. 1- 27.V.2019 (1♂), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (3♀); Loc. 43- 27.VIII.2020 (1♂, 1♀); Loc. 45- 17.VIII.2019 (1♀), 29.VII.2020 (1♀).
31	*Phaeocedus braccatus* (L. Koch, 1866)	Loc. 73- 13. IX. 2020 (1♂,2♀).
32	*Poecilochroa variana* (C.L. Koch, 1839)	Loc. 84- 27.VIII.2020 (1♂,1♀); Loc. 85- 27.VI.2021 (2♂,1♀).
33	*Pterotricha kochi* (O. Pickard-Cambridge, 1872)	Loc. 34- 22.VIII.2020 (1♀), 29.VII.2021 (3♀). Loc. 26- 17.VIII.2019 (1♀), 02.VIII.2021 (2♀); Loc. 43- 22.VIII.2020 (1♀), 29.VII.2021 (1♀); Loc. 57- 27.VI.2021 (2♂,1♀); Loc. 69- 27.VIII.2020 (1♂,1♀); Loc. 87- 02.VIII.2021 (1♂,3♀).
34	*Pterotricha lentiginosa* (C.L. Koch, 1837)	Loc. 2- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (2♂,1♀); Loc. 57- 27.VI.2021

		(1♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀). Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀). Loc. 6- 27.V.2019 (1♂,1♀), 20.VI.2020 (1♂,1♀); Loc. 8- 27.V.2021 (2♀); Loc. 44- 27.VIII.2020 (2♂,1♀); Loc. 59- 27.VI.2021 (1♂,1♀); Loc. 35- 22.VIII.2020 (1♂,1♀), 29.VII.2021 (1♀).
35	*Scotophaeus scutulatus* (L. Koch, 1866)	Loc. 35- 22.VIII.2020 (1♂,1♀), 29.VII.2021 (1♀). Loc. 27- 17.VIII.2019 (1♀), 29.VII.2020 (1♂,1♀), 02.VIII.2021 (1♀).
36	*Setaphis carmeli* (O. Pickard-Cambridge, 1872)	Loc. 43- 27.VIII.2020 (2♂, 1♀); Loc. 47- 17.VIII.2019 (1♀), 29.VII.2020 (1♀); Loc. 5- 24.VI.2021 (1♂,1♀).
37	*Zelotes cingarus* (O. Pickard-Cambridge, 1874)	Loc. 83- 20.VIII.2019 (2♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 84- 27.VIII.2020 (1♂,1♀); Loc. 85- 27.VI.2021 (2♂,1♀).
38	*Zelotes fulvaster* (Simon, 1878)	Loc. 87- 30.V. 2019 (3♂), 28.VI. 2021 (2♂).
39	*Zelotes longipes* (L. Koch, 1866)	Loc. 1- 08.IV.2021 (2♀); Loc. 2- 27.V. 2021 (2♀); Loc. 48- 25.VIII.2020 (1♂, 1♀); Loc. 87- 02.VIII.2021 (1♂, 1♀).
40	*Zelotes metellus* Roewer, 1928	Loc. 8- 25.VI.2021 (1♂, 1♀), Loc. 10- 09.VII.2021 (2♂, 1♀); Loc. 36- 22.VIII.2020 (1♀), 29.VII.2021 (2♀).
41	*Zelotes puritanus* Chamberlin, 1922	Loc. 26- 14.VII. 2019 (1♀); Loc. 12- 29.V. 2021 (2♀); Loc. 41- 27.VIII.2020 (1♀).
42	*Zelotes strandi* (Nosek, 1905)	Loc. 29- 30.V.2019 (2♀); Loc.17- 23. VII.2020 (2♂,1♀).
43	*Zelotes subterraneus* (C.L. Koch, 1833)	Loc. 1- 01.V.2019 (3♀), 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 87- 02.VIII. 2021 (1♂,1♀).
Family LIOCRANIDAE		
1	*Mesiotelus scopensis* Drensky, 1935	Loc. 83- 20.VIII.2019 (2♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 84- 27.VIII.2020 (1♀); Loc. 85- 27.VI.2021 (1♀).
Family LIYNIPHIIDAE		
1	*Cresmatoneta mutinensis* (Canestrini, 1868**)**	Loc. 27- 17.VIII.2019 (1♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀).
2	*Erigone atra* Blackwall, 1833	Loc. 56- 27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (4♀).
3	*Frontinellina frutetorum* (C.L. Koch, 1835)	Loc. 13- 29.V. 2021 (2♀); Loc. 43- 27.VIII.2020 (2♂,1♀); Loc. 47- 17.VIII.2019 (1♀), 29.VII.2020 (1♀); Loc. 5- 24.VI.2021 (1♂, 1♀), Loc. 6- 08.VII.2021 (2♂, 1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (2♀). Loc. 25- 17.VIII.2019 (1♀), 29.VII.2020 (2♀), 02.VIII.2021 (2♀); Loc. 68- 27.VIII.2020 (1♂,1♀); Loc. 57- 27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (1♀); Loc. 56- 27.VI.2021 (1♂,1♀); Loc. 62- 24.VIII.2020 (1♂,3♀). Loc. 1- 01.V.2019 (2♀), 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (2♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀). Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀).
4	*Lepthyphantes leprosus* (Ohlert, 1865)	Loc. 18- 12.VII. 2019 (2♀), 11.VII.2021 (1♀,1♂); Loc. 35- 23.VII. 2020 (3♀). Loc. 87- 15. IX. 2019 (3♀), 26.VIII.2020 (1♀, 2♂); Loc. 35- 15.VIII. 2021 (1♀). Loc. 59- 31. V. 2019 (2♀,1♂); Loc. 64- 28.V.2020 (1♀); Loc. 33- 14.VII.2019 (1♀, 2♂); Loc. 87- 27.IX.2021 (3♀).
5	*Linyphia triangularis* (Clerck, 1757)	Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀). Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀). Loc. 43- 03.V.2019 (3♀), 30.V.2020 (1♂,1♀), 20.VI.2020 (1♀).
6	*Megalepthyphantes nebulosus* (Sundevall, 1830)	Loc. 5- 24.VI.2021 (1♂,1♀), Loc. 6- 08.VII.2021 (2♂,1♀); Loc. 36- 22.VIII.2020 (1♀), 29.VII.2021 (2♀). Loc. 25- 17.VIII.2019 (5♀), 02.VIII.2021 (3♀); Loc. 68- 27.VIII.2020 (1♂,1♀); Loc. 56- 27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (4♀).
7	*Metopobactrus prominulus* (O. Pickard-Cambridge, 1873)	Loc. 66- 29.VII.2021 (1♂); Loc. 67- 29.VII. 2021 (2♂); Loc. 68- 29.VII.2021

		(1♂).
8	*Microneta viaria* (Blackwall, 1841)	Loc. 1- 14.VII. 2019 (1♀); Loc. 12- 29.V. 2021 (2♀); Loc. 41- 27.VIII.2020 (1♀).
9	*Neriene peltata* (Wider, 1834)	Loc. 6- 27.V.2019 (2♀), 18.VII.2019 (1♂); Loc. 11- 21.VI.2020 (2♀); Loc. 33- 09.VII.2021 (2♂); Loc. 45- 22.VII.2020 (1♂,1♀).
Family LYCOSIDAE		
1	*Alopecosa albofasciata* (Brullé, 1832)	Loc. 5- 24.VI.2021 (1♂,1♀), Loc. 8- 08.VII.2021 (1♂, 1♀). Loc. 2- 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 12- 27.V. 2021 (2♀); Loc. 43- 27.VIII.2020 (2♂, 1♀); Loc. 46- 17.VIII.2019 (1♀), 29.VII.2020 (1♀).
2	*Alopecosa cursor* (Hahn, 1831)	Loc. 1- 14.VII. 2019 (1♂,1♀); Loc. 12- 29.V.2021 (2♀); Loc. 41- 27.VIII.2020 (1♂, 1♀); Loc. 26- 14.VII.2019 (1♂,1♀); Loc. 12- 29.V. 2021 (2♀); Loc. 41- 27.VIII.2020 (1♂, 1♀).
3	*Alopecosa pentheri* (Nosek, 1905)	Loc. 83- 20.VIII.2019 (2♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 84- 27.VIII.2020 (1♀); Loc. 85- 27.VI.2021 (1♀).
4	*Alopecosa pulverulenta* (Clerck, 1757)	Loc. 19- 26.V.2019 (1♀); Loc. 23- 28.V.2020 (1♀); Loc. 27- 08.IV. 2021 (1♂); Loc. 17- 23.IV.2021 (1♂). Loc. 42- 14.IX.2019 (1♂,2♀); Loc. 30- 12.IX.2020 (1♂,2♀). Loc. 18- 12.VII. 2019 (2♀).
5	*Alopecosa trabalis* (Clerck, 1757)	Loc. 2- 27.V.2021 (2♀); Loc. 44- 27.VIII.2020 (2♂, 1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀). Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀).
6	*Arctosa cinerea* (Fabricius, 1777)	Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀).
7	*Arctosa leopardus* (Sundevall, 1833)	Loc. 12- 29.V.2021 (2♀); Loc. 41- 27.VIII.2020 (2♀); Loc. 47- 17.VIII.2019 (1♀), 29.VII.2020 (1♀); Loc. 5- 24.VI.2021 (2♀).
8	*Arctosa tbilisiensis* Mcheidze, 1946	Loc. 2- 27.V.2021 (2♀); Loc. 44- 27.VIII.2020 (2♂, 1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀).
9	*Geolycosa vultuosa* (C.L. Koch, 1838)	Loc. 56- 27.VI.2021 (2♂,1♀); Loc. 68- 27.VIII.2020 (1♂,1♀); Loc. 87- 02.VIII.2021 (1♂,2♀).
10	*Hogna radiata* (Latreille, 1817)	Loc. 35- 15.VIII.2021 (1♀). Loc. 59- 31. V. 2019 (2♀); Loc. 64- 28.V.2020 (1♀); Loc. 33- 14.VII.2019 (1♀); Loc. 87- 27.IX.2021 (2♀).
11	*Lycosa praegrandis* C.L. Koch, 1836	Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (2♀), 02.VIII.2021 (1♀). Loc. 34- 22.VIII.2020 (1♀), 29.VII.2021 (2♀).
12	*Pardosa agrestis* (Westring, 1861)	Loc. 1- 08.IV.2021 (2♀); Loc. 2- 27.V.2021 (2♀); Loc. 48- 25.VIII.2020 (1♂, 1♀); Loc. 59- 15.IX.2020 (2♂,2♀); Loc. 60- 15.IX.2020 (2♀); Loc. 61- 15.IX. 2020 (1♂,2♀). Loc. 66- 29.VII.2021 (1♀); Loc. 67- 29.VII.2021 (2♀); Loc. 68- 29.VII.2021 (1♂, 1♀).
13	*Pardosa agricola* (Thorell, 1856)	Loc. 8- 25.VI.2021 (1♀), Loc. 10- 09.VII.2021 (1♀); Loc. 36- 22.VIII.2020 (1♀), 29.VII.2021 (2♀).
14	*Pardosa monticola* (Clerck, 1757)	Loc. 25- 17.VIII.2019 (1♀), 02.VIII.2021 (2♀); Loc. 68- 27.VIII.2020 (2♀); Loc. 56- 27.VI.2021 (1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (1♀).
15	*Pardosa proxima* (C.L. Koch, 1847)	Loc. 1- 14.VII. 2019 (1♂,1♀); Loc. 12- 29.V.2021 (2♀); Loc. 41- 27.VIII.2020 (1♂, 1♀).
16	*Piratula latitans* (Blackwell, 1841)	Loc. 6- 24.VI.2021 (1♀), Loc. 7- 08.VII.2021 (1♀); Loc. 57- 27.VI.2021 (1♀); Loc. 34- 22.VIII.2020 (1♀), 29.VII.2021 (2♀) Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (2♀).
17	*Trochosa hispanica* Simon, 1870	Loc. 19- 26.V.2019 (1♀); Loc. 23- 28.V.2020 (1♀); Loc. 27- 08.IV.2021 (1♀); Loc. 17- 23.IV.2021 (1♀).
18	*Trochosa spinipalpis* (F.O. Pickard-Cambridge, 1895)	Loc. 6- 24.VI.2021 (1♀), 43- 22.VIII.2020 (1♀), 29.VII.2021 (2♀). Loc. 45- 17.VIII.2019 (1♀).

19	*Wadicosa fidelis* (O. Pickard-Cambridge, 1872)	Loc. 27- 17.VIII.2019 (1♀), 29.VII.2020 (1♂,1♀), 02.VIII.2021 (1♀). Loc. 1- 27.V.2019 (1♂), 20.VI.2020 (1♀); Loc. 2- 27.V.2021 (2♀); Loc. 43- 27.VIII.2020 (1♂, 1♀); Loc. 45- 17.VIII.2019 (1♀).
Family MITURGIDAE		
1	*Zora spinimana* (Sundevall, 1833)	Loc. 2- 27.V.2021 (2♀); Loc. 6- 24.VI.2021 (1♀), Loc. 7- 08.VII.2021 (1♀). Loc. 2- 27.V.2019 (1♀), 20.VI.2020 (1♀).
Family OECOBIIDAE		
1	*Oecobius rhodiensis* Kritscher, 1966	Loc. 59- 15.IX.2020 (2♂,1♀); Loc. 60- 15.IX. 2020 (2♀); Loc. 61- 15.IX.2020 (2♂, 1♀). Loc. 66- 29.VII.2021 (1♀); Loc. 67- 29.VII.2021 (2♀); Loc. 68- 29.VII.2021 (1♂, 1♀).
2	*Uroctea durandi* (Latreille, 1809)	Loc. 2- 17.VIII.2019 (2♂,2♀), 25.VII.2020 (3♀), 24.VI.2021 (1♂,2♀); Loc. 22- 14.VIII.2021 (1♂,2♀); Loc. 73- 13.IX.2020 (2♀); Loc. 87- 21.VIII.2019 (1♂, 2♀), 09.IX.2021 (2♀).
Family OXYOPIDAE		
1	*Oxyopes globifer* Simon, 1876	Loc. 12- 29.V.2021 (2♀); Loc. 41- 27.VIII.2020 (1♂,2♀); Loc. 47- 17.VIII.2019 (3♀), 29.VII.2020 (2♀); Loc. 5- 24.VI.2021 (1♂, 1♀), Loc. 6- 08.VII.2021 (2♂,1♀).
2	*Oxyopes heterophthalmus* (Latreille, 1804)	Loc. 2- 17.VIII.2019 (2♂,2♀), 25.VII.2020 (3♀), 24.VI.2021 (1♂,2♀); Loc. 22- 14.VIII.2021 (1♂,1♀); Loc. 73- 13.IX.2020 (3♀); Loc. 87- 21.VIII.2019 (1♂, 2♀), 09.IX.2021 (2♀). Loc. 12- 29.V.2021 (2♀); Loc. 41- 27.VIII.2020 (1♂, 2♀); Loc. 47- 17.VIII.2019 (3♀), 29.VII.2020 (2♀); Loc. 5- 24.VI.2021 (1♂, 1♀), Loc. 6- 08.VII.2021 (1♂, 1♀). Loc. 10- 09.VII.2021 (2♂,1♀); Loc. 36- 22.VIII.2020 (2♀), 29.VII.2021 (3♀).
3	*Oxyopes lineatus* Latreille, 1806	Loc. 6- 08.VII.2021 (2♂,1♀). Loc. 8- 25.VI.2021 (1♂,1♀), Loc. 10- 09.VII.2021 (2♂, 1♀); Loc. 36- 22.VIII.2020 (1♀), 29.VII.2021 (2♀). Loc. 25- 17.VIII.2019 (2♀), 02.VIII.2021 (2♀); Loc. 68- 27.VIII.2020 (1♂,2♀); Loc. 56- 27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (2♀).
4	*Oxyopes ramosus* (Martini & Goeze, 1778)	Loc. 11- 29.V.2021 (2♀); Loc. 14- 27.VIII.2020 (1♂,2♀); Loc. 23- 17.VIII.2019 (2♀), 29.VII.2020 (1♀); Loc. 62- 24.VI.2021 (1♂, 2♀).
Family PALPIMANIDAE		
1	*Palpimanus gibbulus* Dufour, 1820	Loc. 67- 22.VIII.2020 (2♀), 29.VII.2021 (2♀). Loc. 69- 17.VIII.2019 (2♀), 02.VIII.2021 (1♀); Loc. 70- 27.VIII.2020 (1♂,1♀); Loc. 81- 27.VI.2021 (1♂,1♀); Loc. 84- 22.VIII.2020 (2♀), 29.VII.2021 (2♀); Loc. 87- 29.VII.2021 (1♂,1♀).
Family PHILODROMIDAE		
1	*Philodromus cespitum* (Walckenaer, 1802)	Loc. 2- 17.VIII.2019 (1♂,2♀), 25.VII.2020 (3♀), 24.VI.2021 (1♂,2♀); Loc. 22- 14.VIII.2021 (1♂,2♀); Loc. 73- 13. IX.2020 (2♀); Loc. 87- 21.VIII.2019 (1♂, 3♀), 09.IX. 2021 (2♀).
2	*Pulchellodromus pulchellus* (Lucas, 1846)	Loc. 25- 17.VIII.2019 (2♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 66- 27.VIII.2020 (1♀); Loc. 57- 27.VI.2021 (1♀); Loc. 43- 22.VIII.2020 (2♀).
3	*Thanatus atratus* Simon, 1875	Loc. 33- 22.VIII.2020 (1♀), 29.VII.2021 (3♀). Loc. 26- 17.VIII.2019 (1♀), 02.VIII.2021 (2♀); Loc. 42- 22.VIII.2020 (1♀), 29.VII.2021 (1♀).
4	*Thanatus formicinus* (Clerck, 1757)	Loc. 83- 20.VIII.2019 (2♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 84- 27.VIII.2020 (1♀); Loc. 85- 27.VI.2021 (1♀).
5	*Thanatus oblongiusculus* (Lucas, 1846)	Loc. 5- 24.VI.2021 (1♂,1♀), Loc. 6- 08.VII.2021 (1♂, 1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (2♀). Loc. 25- 17.VIII.2019 (1♀), 29.VII.2020 (2♀), 02.VIII.2021 (1♀); Loc. 68- 27.VIII.2020 (1♂,1♀).
6	*Thanatus pictus* L. Koch, 1881	Loc. 18- 12.VII. 2019 (2♀), 11.VII.2021 (1♀,1♂); Loc. 35- 23.VII. 2020 (3♀).

		Loc. 87- 15. IX. 2019 (3♀), 26.VIII.2020 (1♀, 1♂).
7	*Thanatus vulgaris* Simon, 1870	Loc. 5- 24.VI.2021 (2♀), Loc. 7- 08.VII.2021 (1♀); Loc. 57- 27.VI.2021 (1♀); Loc. 35- 22.VIII.2020 (1♀), 29.VII.2021 (2♀).
Family PHOLCIDAE		
1	*Holocnemus pluchei* (Scopoli, 1763)	Loc. 5- 24.VI.2021 (1♂, 1♀), Loc. 6- 08.VII.2021 (2♂,1♀); Loc. 34- 22.VIII.2020 (2♀).
2	*Pholcus opilionoides* (Schrank, 1781)	Loc. 33- 22.VIII.2020 (2♀). , 29.VII.2021 (2♀). Loc. 25- 17.VIII.2019 (1♀), 29.VII.2020 (2♀), 02.VIII.2021 (2♀); Loc. 68- 27.VIII.2020 (1♂,1♀); Loc. 57- 27.VI.2021 (2♂,1♀).
3	*Pholcus phalangioides* (Fuesslin, 1775)	Loc. 1- 14.VII. 2019 (1♂,1♀); Loc. 12- 29.V. 2021 (2♀); Loc. 41- 27.VIII.2020 (1♂, 1♀).
Family PHRUROLITHIDAE		
1	*Phrurolithus festivus* (C.L. Koch 1835)	Loc. 10- 29.V. 2021 (3♂); Loc. 12- 27.VIII.2020 (1♂); Loc. 87- 29.VII. 2021 (1♂).
Family PISAURIDAE		
1	*Pisaura mirabilis* (Clerck, 1757)	Loc. 5- 24.VI.2021 (1♀), Loc. 6- 08.VII.2021 (1♂,2♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (2♀). Loc. 25- 17.VIII.2019 (1♀), 29.VII.2020 (2♀), 02.VIII.2021 (2♀); Loc. 68- 27.VIII.2020 (1♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (1♀); Loc. 56- 27.VI.2021 (1♂,1♀); Loc. 62- 24.VIII.2020 (1♂,1♀).
Family SALTICIDAE		
1	*Aelurillus luctuosus* (Lucas, 1846)	Loc. 6- 27.V.2019 (2♀), 18.VII.2019 (1♂); Loc. 11- 21.VI. 2020 (2♀); Loc. 33- 09.VII.2021 (2♂); Loc. 45- 22.VII.2020 (1♂,1♀).
2	*Attulus distinguendus* (Simon, 1868)	Loc. 6- 08.VII.2021 (1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (2♀). Loc. 25- 17.VIII.2019 (1♀), 29.VII.2020 (2♀), 02.VIII.2021 (2♀); Loc. 68- 27.VIII.2020 (1♀).
3	*Ballus chalybeius* (Walckenaer, 1802)	Loc. 57- 27.VI.2021 (2♂,1♀); Loc. 69- 27.VIII.2020 (1♂,1♀); Loc. 87- 02.VIII.2021 (1♂,2♀).
4	*Chalcoscirtus infimus* (Simon, 1868)	Loc. 1- 14.VII. 2019 (1♀); Loc. 12- 29.V. 2021 (2♀); Loc. 41- 27.VIII.2020 (1♀).
5	*Chalcoscirtus nigritus* (Thorell, 1875)	Loc. 81- 27.VI.2021 (2♂); Loc. 84- 22.VIII.2020 (2♂), Loc. 87- 29.VII. 2021 (1♂).
6	*Cyrba algerina* (Lucas, 1846)	Loc. 11- 29.V.2021 (1♀); Loc. 14- 27.VIII.2020 (2♂, 3♀); Loc. 23- 17.VIII.2019 (2♀), 29.VII.2020 (1♀); Loc. 62- 24.VI.2021 (1♂, 3♀), Loc. 65- 08.VII.2021 (1♂, 1♀); Loc. 67- 22.VIII.2020 (2♀), 29.VII.2021 (2♀). Loc. 69- 17.VIII.2019 (4♀), 02.VIII.2021 (1♀); Loc. 70- 27.VIII.2020 (1♂,1♀); Loc. 81- 27.VI.2021 (1♂,1♀); Loc. 84- 22.VIII.2020 (2♀), 29.VII.2021 (2♀); Loc. 87- 29.VII. 2021 (2♂, 2♀).
7	*Euophrys frontalis* (Walckenaer, 1802)	Loc. 2- 27.V.2019 (2♂,1♀), 27.V. 2020 (1♀); Loc. 3- 27.V. 2021 (1♀); Loc. 87- 02.VIII. 2021 (1♂, 1♀).
8	*Evarcha falcata* (Clerck, 1757)	Loc. 12- 29.V. 2021 (2♀); Loc. 41- 27.VIII.2020 (2♀); Loc. 47- 17.VIII.2019 (2♀).
9	*Heliophanus cupreus* (Walckenaer, 1802)	Loc. 8- 25.VI.2021 (1♀), Loc. 10- 09.VII.2021 (1♀); Loc. 36- 22.VIII.2020 (1♀), 29.VII.2021 (2♀).
10	*Heliophanus dampfi* Schenkel, 1923	Loc. 67- 27.VIII.2020 (1♂,1♀); Loc. 56- 27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (2♀).
11	*Heliophanus dubius* C.L. Koch, 1835	Loc. 7- 08.VII.2021 (1♀); Loc. 34- 22.VIII.2020 (1♀), 29.VII.2021 (2♀); Loc. 57- 27.VI.2021 (1♀).

12	*Heliophanus edentulus* Simon, 1871	Loc. 87- 15.IX. 2019 (2♂), 26.VIII.2020 (1♂).
13	*Heliophanus flavipes* (Hahn, 1832)	Loc. 5- 24.VI.2021 (1♂), Loc. 6- 08.VII.2021 (2♂); Loc. 34- 22.VIII.2020 (2♂), 29.VII.2021 (2♂).
14	*Heliophanus lineiventris* Simon, 1868	Loc. 7- 08.VII.2021 (2♂); Loc. 57- 27.VI.2021 (1♂); Loc. 34- 29.VII.2021 (2♂) Loc. 26- 17.VIII.2019 (1♂), 29.VII.2020 (2♂); Loc. 68- 27.VIII.2020 (1♂).
15	*Leptorchestes sikorskii* Prószyński, 2000	Loc. 87- 15.IX.2019 (2♂), 26.VIII.2020 (1♂).
16	*Macaroeris nidicolens* (Walckenaer, 1802)	Loc. 25- 17.VIII.2019 (1♀), 29.VII.2020 (2♀), 02.VIII.2021 (2♀); Loc. 69- 27.VIII.2020 (1♀).
17	*Mogrus neglectus* (Simon, 1868)	Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (2♀), 02.VIII.2021 (2♀); Loc. 34- 22.VIII.2020 (1♀), 29.VII.2021 (2♀).
18	*Pellenes geniculatus* (Simon, 1868)	Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (1♀).
19	*Philaeus chrysops* (Poda, 1761)	Loc. 1- 14.VII.2019 (1♂,1♀); Loc. 12- 29.V.2021 (1♀); Loc. 41- 27.VIII.2020 (1♂,1♀). Loc. 26- 14.VII. 2019 (1♂,1♀); Loc. 12- 29.V.2021 (2♀); Loc. 41- 27.VIII.2020 (1♂,1♀). Loc. 84- 27.VIII.2020 (1♂,1♀); Loc. 85- 27.VI.2021 (2♂,1♀).
20	*Phlegra bresnieri* (Lucas, 1846)	Loc. 26- 17.VIII.2019 (2♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 67- 27.VIII.2020 (1♀).
21	*Phlegra cinereofasciata* (Simon, 1868)	Loc. 57- 27.VI.2021 (1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (1♀). Loc. 87- 30.V.2019 (1♀), 28.VI. 2021 (2♀).
22	*Phlegra lineata* (C.L. Koch, 1846)	Loc. 1- 27.V.2019 (1♂), 27.V.2020 (1♂); Loc. 3- 27.V.2021 (2♂); Loc. 87- 02.VIII.2021 (1♂).
23	*Plexippus paykulli* (Audouin, 1825)	Loc. 56- 27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (2♀).
24	*Pseudeuophrys lanigera* (Simon, 1871)	Loc. 25- 17.VIII.2019 (2♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 67- 27.VIII.2020 (1♀).
25	*Pseudicius picaceus* (Simon, 1868)	Loc. 33- 14.VII.2019 (2♂).
26	*Salticus scenicus* (Clerck, 1757)	Loc. 5- 24.VI.2021 (1♀), Loc. 6- 08.VII.2021 (1♀); Loc. 35- 22.VIII.2020 (2♀), 29.VII.2021 (2♀); Loc. 25- 17.VIII.2019 (1♀).
27	*Salticus zebraneus* (C.L. Koch, 1837)	Loc. 56- 27.VI.2021 (1♀); Loc. 62- 24.VIII.2020 (2♀).
28	*Talavera aequipes* (O. Pickard-Cambridge, 1871)	Loc. 6- 27.V.2019 (2♀), 18.VII.2019 (1♀); Loc. 11- 21.VI.2020 (1♀); Loc. 33- 09.VII.2021 (2♀).
Family SCYTODIDAE		
1	*Scytodes thoracica* (Latreille, 1802)	Loc. 1- 01.V.2019 (2♀), 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (2♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀). Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀). Loc. 43- 03.V.2019 (2♀), 30.V.2020 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 68- 27.VIII.2020 (1♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 43- 22.VIII.2020 (1♀), 29.VII.2021 (2♀). Loc. 45- 17.VIII.2019 (1♀), 29.VII.2020.
Family SICARIIDAE		
1	*Loxosceles rufescens* (Dufour, 1820)	Loc. 7- 08.VII.2021 (1♂,1♀). Loc. 2- 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 2- 27.V. 2021 (2♀); Loc. 44- 27.VIII.2020 (1♂,1♀); Loc. 45- 17.VIII.2019 (1♀), 29.VII.2020 (1♀).
Family SPARASSIDAE		
1	*Eusparassus walckenaeri* (Audouin, 1825)	Loc. 1- 27.V.2019 (1♂), 20.VI.2020 (1♂); Loc. 2- 27.V. 2021 (2♂); Loc. 43- 27.VIII.2020 (1♂).
2	*Micrommata virescens* (Clerck, 1757)	Loc. 26- 17.VIII.2019 (2♀), 02.VIII.2021 (2♀); Loc. 69- 27.VIII.2020 (1♂,1♀); Loc. 56- 27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (2♀).

Family TETRAGNATHIDAE		
1	*Tetragnatha obtusa* C.L. Koch, 1837	Loc. 34- 22.VIII.2020 (1♂), 29.VII.2021 (2♂,1♀). Loc. 26- 17.VIII.2019 (1♂,1♀), 02.VIII.2021 (2♂).
Family THERIDIIDAE		
1	*Anatolidion gentile* (Simon, 1881)	Loc. 12- 29.V. 2021 (3♀); Loc. 41- 27.VIII.2020 (3♀); Loc. 47- 17.VIII.2019 (2♀), 29.VII.2020 (2♀).
2	*Asagena phalerata* (Panzer, 1801)	Loc. 83- 20.VIII.2019 (1♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 84- 27.VIII.2020 (1♀); Loc. 85- 27.VI.2021 (1♀).
3	*Cryptachaea riparia* (Blackwall, 1834)	Loc. 11- 29.V.2021 (2♀); Loc. 14- 27.VIII.2020 (1♀); Loc. 23- 17.VIII.2019 (2♀), 29.VII.2020 (1♀).
4	*Enoplognatha mandibularis* (Lucas, 1846)	Loc. 70- 27.VIII.2020 (1♂); Loc. 81- 27.VI.2021 (2♂); Loc. 84- 22.VIII.2020 (2♂), 29.VII.2021 (1♀); Loc. 87- 29.VII. 2021 (1♀).
5	*Enoplognatha mordax* (Thorell, 1875)	Loc. 1- 27.V.2019 (2♂), 27.V. 2020 (1♀); Loc. 2- 27.V. 2021 (2♂); Loc. 87- 02.VIII. 2021 (1♂).
6	*Enoplognatha thoracica* (Hahn, 1833)	Loc. 6- 27.V.2019 (2♂), 18.VII.2019 (1♂); Loc. 11- 21.VI. 2020 (2♂).
7	*Episinus truncatus* Latreille, 1809	Loc. 59- 31.V.2019 (2♀); Loc. 64- 28.V.2020 (1♀).
8	*Euryopis laeta* (Westring, 1861)	Loc. 7- 08.VII.2021 (1♀); Loc. 34- 22.VIII.2020 (1♀), 29.VII.2021 (2♀); Loc. 57- 27.VI.2021 (1♀).
9	*Kochiura aulica* (C.L. Koch, 1838)	Loc. 6- 08.VII.2021 (1♀); Loc. 25- 17.VIII.2019 (1♀), 29.VII.2020 (2♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (2♀).
10	*Neottiura herbigrada* (Simon, 1873)	Loc. 12- 29.V.2021 (3♀); Loc. 41- 27.VIII.2020 (2♀); Loc. 47- 17.VIII.2019 (2♀), 29.VII.2020 (1♀).
11	*Simitidion simile* (C.L. Koch, 1836)	Loc. 7- 08.VII.2021 (2♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀).
12	*Steatoda albomaculata* (De Geer, 1778)	Loc. 33- 14.VII.2019 (1♀); Loc. 87- 27.IX. 2021 (2♀).
13	*Steatoda paykulliana* (Walckenaer, 1806)	Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀). Loc. 43- 03.V.2019 (2♀), 30.V.2020 (1♂,1♀), 20.VI.2020 (1♀); Loc. 87- 02.VIII.2021 (1♂,2♀).
14	*Steatoda triangulosa* (Walckenaer 1802)	Loc. 9- 29.V. 2021 (2♀); Loc. 12- 27.VIII.2020 (1♀); Loc. 13- 17.VIII.2019 (3♀), 29.VII.2020 (1♀).
15	*Theridion melanurum* Hahn, 1831	Loc. 1- 08.IV.2021 (2♀); Loc. 2- 27.V. 2021 (2♀); Loc. 48- 25.VIII. 2020 (1♀); Loc. 87- 02.VIII.2021 (1♀).
Family THOMISIDAE		
1	*Bassaniodes bufo* (Dufour, 1820)	Loc. 5- 30.V.2021 (2♂).
2	*Bassaniodes caperatus* (Simon, 1875)	Loc. 1- 14.VII. 2019 (1♂,1♀); Loc. 12- 29.V. 2021 (2♀); Loc. 41- 27.VIII.2020 (1♂, 1♀).
3	*Bassaniodes pseudorectilineus* (Wunderlich, 1995)	Loc. 9- 29.V. 2021 (3♀); Loc. 12- 27.VIII.2020 (4♀); Loc. 13- 17.VIII.2019 (3♀), 29.VII.2020 (2♀); Loc. 64- 24.VI.2021 (3♀), Loc. 65- 08.VII.2021 (1♀); Loc. 67- 22.VIII.2020 (2♀), 29.VII.2021 (2♀). Loc. 69- 17.VIII.2019 (1♀), 02.VIII.2021 (3♀); Loc. 70- 27.VIII.2020 (1♀); Loc. 81- 27.VI.2021 (1♀); Loc. 84- 22.VIII.2020 (2♀), 29.VII.2021 (3♀); Loc. 87- 29.VII. 2021 (1♀).
4	*Bassaniodes tristrami* (O. Pickard-Cambridge, 1872)	Loc. 87- 29.VII. 2021 (1♀).
5	*Heriaeus graminicola* (Doleschall, 1852)	Loc. 7- 08.VII.2021 (1♀); Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (2♀); Loc. 34- 22.VIII.2020 (1♀), 29.VII.2021 (2♀); Loc. 57- 27.VI.2021 (1♀).
6	*Misumena vatia* (Clerck, 1757)	Loc. 6- 27.V.2019 (2♀), 18.VII.2019 (1♀); Loc. 11- 21.VI. 2020 (2♀); Loc. 33- 09.VII.2021 (2♀).
7	*Ozyptila atomaria* (Panzer, 1801)	Loc. 34- 22.VIII.2020 (1♀), 29.VII.2021 (2♀).

8	*Ozyptila tuberosa* (Thorell, 1875)	Loc. 5- 03.V.2019 (1♀,1♂).
9	*Ozyptila* sp.	Loc. 87- 27.IX.2021 (1♂,2♀).
10	*Psammitis abramovi* (Marusik & Logunov, 1995)	Loc. 5- 24.VI.2021 (1♂,1♀), Loc. 6- 08.VII.2021 (1♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (2♀).
11	*Psammitis ninnii* (Thorell, 1872)	Loc. 6- 08.VII.2021 (2♂,1♀); Loc. 27- 17.VIII.2019 (1♀), 29.VII.2020 (1♂,1♀), 02.VIII.2021 (1♀).
12	*Runcinia grammica* (C.L. Koch, 1837)	Loc. 11- 29.V. 2021 (2♀); Loc. 14- 27.VIII.2020 (2♀); Loc. 23- 17.VIII.2019 (2♀), 29.VII.2020 (1♀); Loc. 62- 24.VI.2021 (1♀).
13	*Spiracme striatipes* (L. Koch, 1870)	Loc. 26- 17.VIII.2019 (2♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 57- 27.VI.2021 (1♀); Loc. 67- 27.VIII.2020 (1♀).
14	*Synema globosum* (Fabricius, 1775)	Loc. 2- 17.VIII.2019 (2♀), 25.VII.2020 (2♀), 24. VI.2021 (1♀); Loc. 22- 14. VIII.2021 (2♀); Loc. 73- 13. IX.2020 (2♀); Loc. 87- 21. VIII.2019 (3♀), 09.IX. 2021 (2♀).
15	*Thomisus onustus* Walckenaer, 1805	Loc. 1- 01.V.2019 (2♀), 27.V.2019 (1♂,1♀), 20.VI.2020 (2♀); Loc. 2- 27.V. 2021 (3♀); Loc. 6- 27.V.2019 (2♀), 18.VII.2019 (1♂); Loc. 11- 21.VI. 2020 (2♀); Loc. 33- 09.VII.2021 (2♂); Loc. 45- 22.VII.2020 (1♂,1♀); Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀). Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀). Loc. 19- 26.V.2019 (1♀). Loc. 23- 28.V.2020 (1♀); Loc. 27- 08.IV.2021 (1♂); Loc. 17- 23.IV.2021 (1♂). Loc. 42- 14.IX.2019 (2♂,3♀); Loc. 30- 12.IX.2020 (1♂,3♀). Loc. 18- 12.VII.2019 (2♀), 11.VII.2021 (1♀,1♂); Loc. 35- 23.VII. 2020 (3♀). Loc. 87- 15.IX.2019 (3♀), 26.VIII.2020 (1♀, 2♂).
16	*Tmarus stellio* Simon, 1875	Loc. 41- 27.VIII.2020 (1♀); Loc. 47- 17.VIII.2019 (2♀).
17	*Xysticus edax* (O. Pickard-Cambridge, 1872)	Loc. 11- 29.V.2021 (2♀); Loc. 14- 27.VIII.2020 (2♂,1♀); Loc. 23- 17.VIII.2019 (2♀), 29.VII.2020 (1♀); Loc. 62- 24.VI.2021 (1♂,3♀).
18	*Xysticus kaznakovi* Utochkin, 1968	Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 67- 27.VIII.2020 (1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 43- 22.VIII.2020 (1♂,2♀).
19	*Xysticus kempeleni* Thorell, 1872	Loc. 8- 25.VI.2021 (1♀), Loc. 10- 09.VII.2021 (1♀); Loc. 36- 22.VIII.2020 (1♀), 29.VII.2021 (2♀). Loc. 25- 17.VIII.2019 (1♀), 02.VIII.2021 (2♀).
20	*Xysticus kochi* Thorell, 1872	Loc. 68- 27.VIII.2020 (1♂,2♀); Loc. 56- 27.VI.2021 (2♂,1♀); Loc. 43- 22.VIII.2020 (2♀), 29.VII.2021 (2♀).
21	*Xysticus marusiki* Ono & Martens, 2005	Loc. 26- 17.VIII.2019 (1♀), 02.VIII.2021 (2♀); Loc. 34- 22.VIII.2020 (1♀), 29.VII.2021 (1♀).
22	*Xysticus thessalicus* Simon, 1916	Loc. 2- 27.V.2019 (1♀); Loc. 6- 24.VI.2021 (1♀); Loc. 7- 08.VII.2021 (1♀).
Family TITANOECIDAE		
1	*Nurscia albomaculata* (Lucas, 1846)	Loc. 1- 01.V.2019 (2♀), 27.V.2019 (1♂,1♀), 20.VI.2020 (1♀); Loc. 7- 08.VII.2021 (2♂,1♀); Loc. 33- 14.VII.2019 (1♀,2♂); Loc. 43- 22.VIII.2020 (3♀), 29.VII.2021 (2♀); Loc. 56- 27.VI.2021 (1♂,1♀); Loc. 87- 27.IX. 2021 (3♀).
2	*Titanoeca quadriguttata* (Hahn, 1833)	Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (1♀), 02.VIII.2021 (1♀); Loc. 34- 22.VIII.2020 (1♂,1♀), 29.VII.2021 (1♀); Loc. 57- 27.VI.2021 (1♂,1♀).
Family ULOBORIDAE		
1	*Uloborus walckenaerius* Latreille, 1806	Loc. 43- 22.VIII.2020 (1♀), 29.VII.2021 (1♀); Loc. 57- 27.VI.2021 (1♂,1♀); Loc. 69- 27.VIII.2020 (1♂,1♀); Loc. 87- 02.VIII.2021 (1♂, 2♀).
Family ZODARIIDAE		
1	*Pax islamita* (Simon, 1873)	Loc. 19- 26.V.2019 (1♀); Loc. 23- 28.V.2020 (1♀); Loc. 27- 08.IV.2021 (1♂);

		Loc. 17- 23.IV.2021 (1♂).
2	*Zodarion kossamos* Bosmans, 2009	Loc. 33- 14.VII.2019 (1♀,2♂); Loc. 87- 27.IX.2021 (2♀).
3	*Zodarion thoni* Nosek, 1905	Loc. 2- 27.V.2021 (2♀), Loc. 34- 22.VIII.2020 (2♀), 29.VII.2021 (1♀); Loc. 26- 17.VIII.2019 (1♀), 29.VII.2020 (3♀), 02.VIII.2021 (1♀). Loc. 43- 03.V.2019 (3♀), 30.V.2020 (1♂,1♀), 20.VI.2020 (1♀); Loc. 44- 27.VIII.2020 (1♂,1♀); Loc. 57- 27.VI.2021 (1♂,1♀).

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First record of *Eucratoscelus pachypus* Schmidt & von Wirth, 1990 from Kenya (Araneae: Theraphosidae)

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Abstract

The first formal record of *Eucratoscelus pachypus* Schmidt & von Wirth, 1990 from Kenya is reported, based on observation of a female on the western slopes of the Chyulu Hills by the second author. This charismatic species is easily identified based on photographs.

Keywords: Africa, distribution, faunistic, spider, tarantula.

Introduction

Eucratoscelus pachypus Schmidt & von Wirth, 1990 was described on the basis of two female specimens from the pet trade. The type locality was given as "Tansania ohne nähere Angabe" [= Tanzania, without further details] (Schmidt & von Wirth, 1990: 11). This highly distinctive species can be recognised by the hirsute and strongly incrassate tibia, metatarsus and tarsus of leg IV [vs. not strongly incrassate and hirsute in its only known congener *E. constrictus* (Gerstaecker, 1873)], making it easily identifiable on the basis of photographs.

Gallon (2002) gave the first description of the male of *E. pachypus* and redescribed the female from specimens with only 'Tanzania' for a locality. However, he also noted that a self-published pet hobby book by H. J. Peters entitled "Tarantulas of the world: Afrika's Vogelspinnen" indicated the distribution of this species as being in an area either side of the border of Tanzania and Kenya. Nonetheless, no precise localities are

given in that book, just a map with one area crudely drawn in red, without justification for the range given.

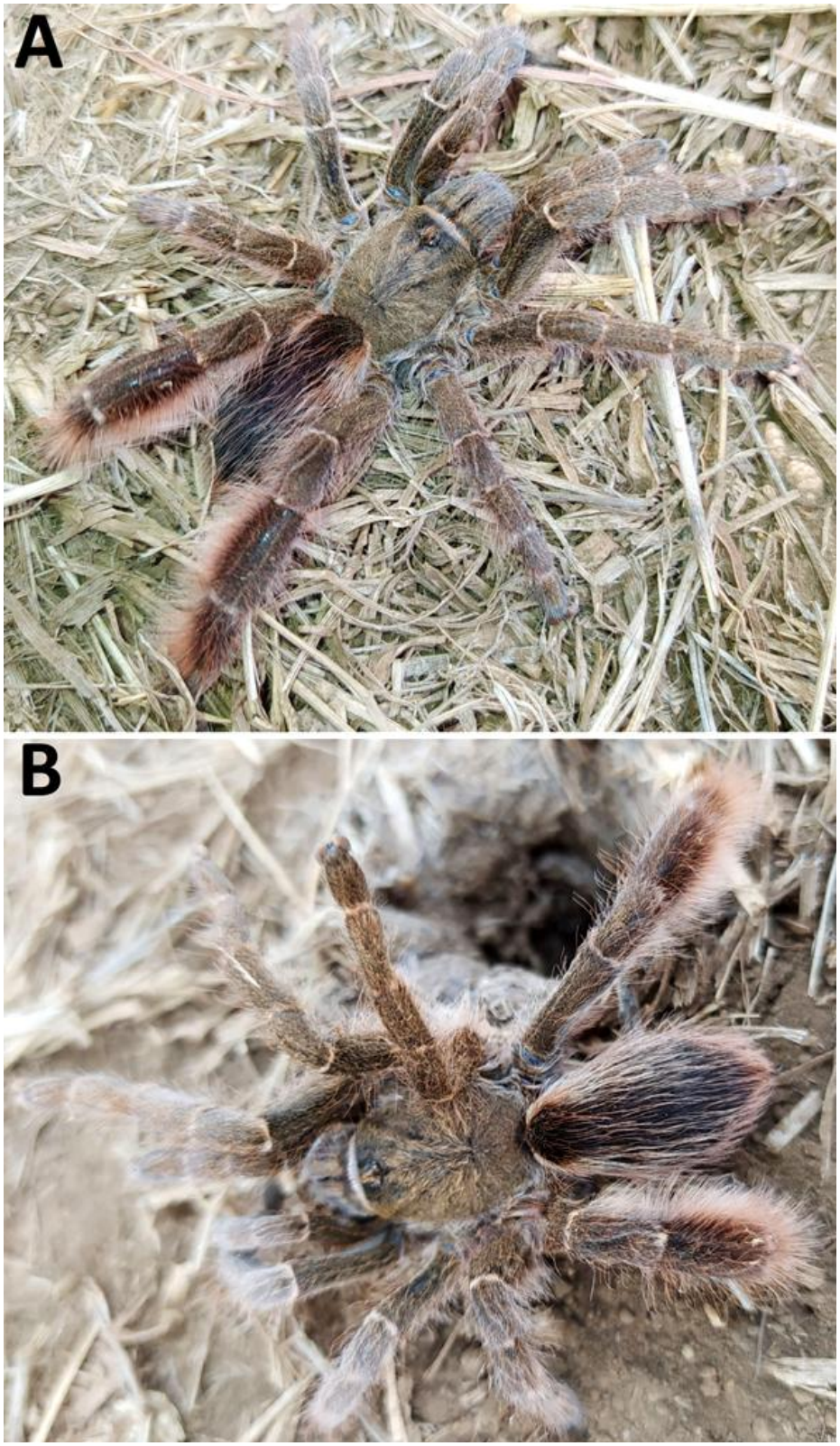

Fig. 1. A-B. Habitus of *Eucratoscelus pachypus* Schmidt & von Wirth, 1990 female observed on the western slopes of the Chyulu Hills, Makueni Co., Kenya. Photo credits: Zarek Cockar.

Thus, in more than 30 years since its original description, *E. pachypus* has still never been explicitly recorded in the scientific literature from a precise locality below the country level, and it is only formally recorded from Tanzania (World Spider Catalog, 2023). Conversely, *E. constrictus* is known from localities in both Kenya and Tanzania (Gallon, 2002; Russell-Smith, 2020).

Observation

On 28th August 2020, the second author observed (Fig. 1A-B) a distinctive theraphosid at the Kuku Group Ranch, located on the western slopes of the Chyulu Hills in Makueni County, Kenya, uploading photographs to the citizen science website iNaturalist. The spider was confirmed as a female of *E. pachypus* by the senior author based on leg IV morphology. The record was confirmed from photographs only and the specimen was not collected. The female occupied a burrow in the ground, its entrance surrounded by compacted and web-covered dirt (Fig. 1B). Therefore, we are able to provide the first precise locality of this species in the literature and formally record it for the first time from Kenya (Fig. 2). Further studies are urgently needed to fully understand the distribution range of this species, study its ecology in the wild, and to assess its conservation status.

Fig. 2. Yellow star indicating the location of the newly reported record of *Eucratoscelus pachypus* Schmidt & von Wirth, 1990 from Kenya. Map made with SimpleMappr (Shorthouse, 2010).

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Eresus elhennawyi sp. n. (Araneae: Eresidae), a new velvet spider mimicking mutilid wasps from north-western Africa

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Abstract

Despite their attractive appearance, the velvet spiders of the genus *Eresus* are an understudied group in some parts of their range. Such areas include the south-western Mediterranean. In this paper we present a description of a new species from Morocco and Algeria, *Eresus elhennawyi* sp. n. We named it after the Egyptian arachnologist Hisham El-Hennawy, who has worked on the arachnids of North Africa for several decades. This species lives under rocks in semi-desert habitats, so unlike most species of the genus *Eresus*, it does not burrow. Adult males seek out females in April. Their colouration is obviously a mimicry of co-occurring stinging mutilid wasps. The most morphologically similar species is *Eresus crassitibialis* Wunderlich, 1987 from the nearby Canary Islands.

Keywords: new species, mimicry, taxonomy, Algeria, Morocco.

Introduction

Eresus spiders often dig simple vertical burrows in the soil about 10 cm deep, some species live in web tubes under rocks. The burrows are lined with silk, which continue on the surface in the form of a roof on one side anchored to the ground. Velvet spider webs are light ochre in colour and are camouflaged by detritus and prey remnants. Ants and large beetles are the most abundant prey. After hatching from the cocoon, the young live for some time in the burrow of the female, which they cannibalise (matriphagy). They live for several years. The males usually mature earlier. Therefore, males tend to be smaller and more numerous than females in the population. The mating season is species-specific, lasting only a few weeks. Velvet spiders are characterised by

remarkable sexual dimorphism. Females are dark grey to black. Adult males seek out the burrows of females during the day and are thus exposed to attack by sight-oriented predators such as birds. Therefore, they have developed a range of protective colourations: males of some species have cryptic colouration that allows them to blend in with the substrate, while other species mimic co-occurring stinging or disgusting animals (wasps, mutilid wasps, tenebrionid beetles; M. Řezáč, *pers. observ.*). This colouration does not develop in males until last moulting. Young males, like females, are mostly black. *Eresus* spiders are found mainly in deserts, semi-deserts, steppes and forest steppes. Most species live on the African continent, but they are also found in warm areas of Europe and Asia (Miller *et al.*, 2012). They are also important from a medical point of view, the neurotoxic effect of their venom on humans has been observed (Kůrka *et al.*, 2015).

Despite the attractive appearance of these spiders, knowledge of their taxonomy is very poor. This is probably due to their life in burrows and low abundance. Females are very rarely found, with males only appearing on the surface for a short time of the year. They are therefore very rare in collections. It is very rare that both males and females are collected, because of the marked sexual dimorphism it is very difficult to assign males to females. Moreover, due to their burrow life, they have very limited genetic flow, which gives rise to a number of morphologically undefined, allopatric taxa with a very small distribution range. This makes *Eresus* one of the most taxonomically difficult spider groups (Řezáč *et al.*, 2008).

The situation is particularly confusing in North Africa. Several species have been described from there, but descriptions are scarce, and type material is usually lost. In the present study, we describe as a new species a species that has hitherto been regarded as *Eresus albopictus* Simon, 1873.

Material and Methods

The bodies and prosomas were photographed with a Hirox Japan digital microscope, the copulatory organs were photographed with a Nikon Eclypse 80i. To investigate the shape of vulvae, these were dissected and cleared by glycerol. The photographs were stacked using the NISElements Imaging Software. The figure plates were made in the programme PhotoShop. The nomenclature of structures of copulatory organs is described in Řezáč *et al.* (2008).

Results

***Eresus elhennawyi* sp. n.**
(Figs. 1a-e, 2a-b, 3a-b, 4a-b, 5a-b, 6, 8a-f, 9a,c,e)
Eresus albopictus El-Hennawy, 2016: 108, f. 2-4 (♀).

Remarks

Several species of the genus *Eresus* were described from North Africa in the 19th century. However, a closer analysis of these taxa showed that none of these names are applicable to our species.

The first of these taxa was *Eresus petagnae* Audouin, 1825. The type material, which came either from Egypt or Syria, is not preserved, the description is too brief, the drawings do not provide any clue to the identity of this taxon. Eugene Simon, noting that it was a juvenile of uncertain generic identity, concluded this taxon as a *nomen dubium* (Simon, 1911). This name is still considered a *nomen dubium* today (El-Hennawy, 2004).

According to the original description, it was a similar taxon to the taxon described as *Eresus frontalis* in Walckenaer (1837). The latter has ferrugineous hairs on the cephalothorax, so it is in contradiction with the morphology of our species.

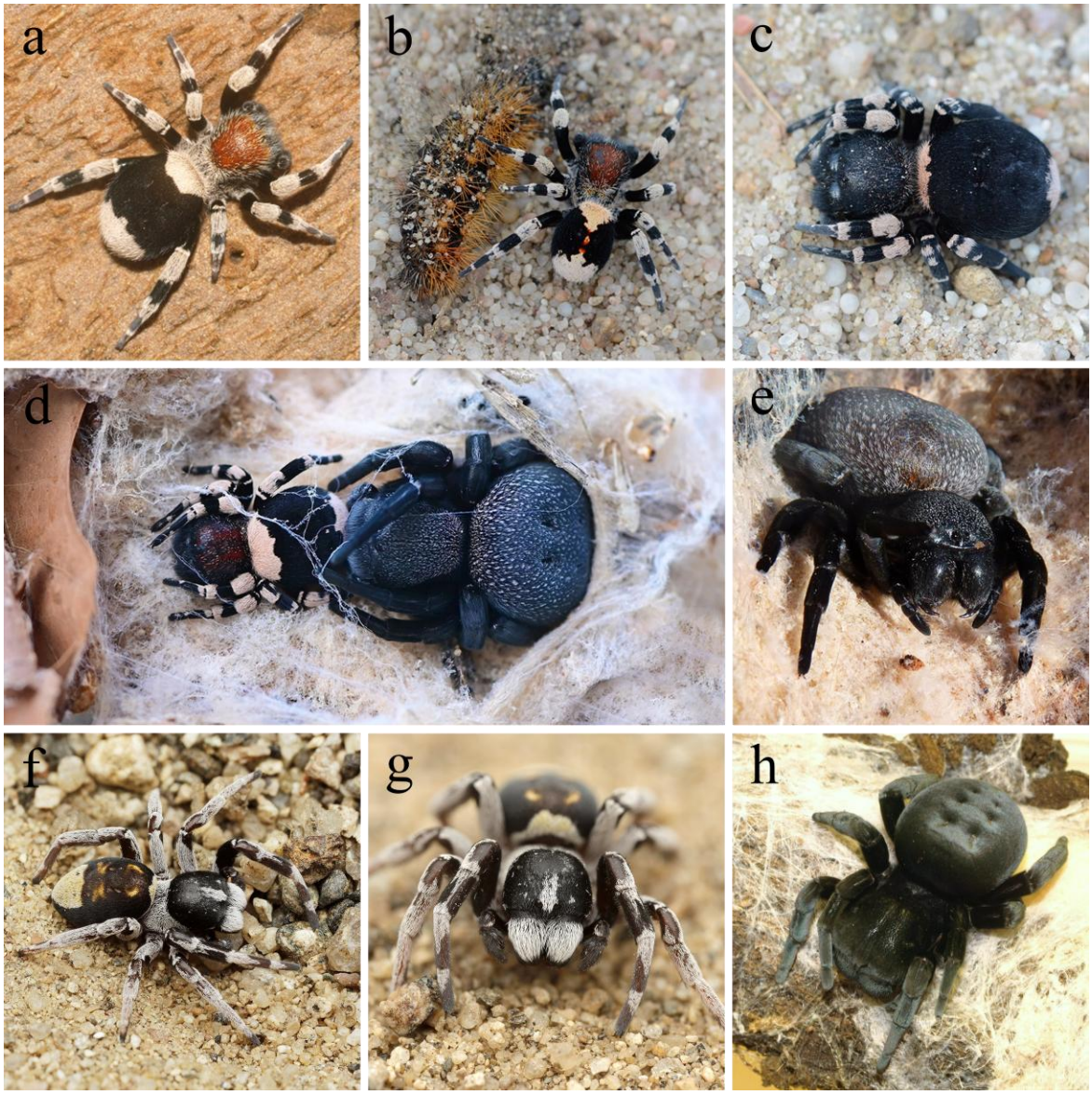

Fig. 1. a-h. habitus of *Eresus elhennawyi* sp. n. and *E. crassitibialis* Wunderlich, 1987 living specimens. a-e. *Eresus elhennawyi*. a. male (Morocco). b. male (Tafraoute, Morocco). c. male (near Algeria-Morocco border, Morocco). d. male and female in burrow (Sidi Ifni, Morocco). e. female (Mirleft, Morocco). f-h. *Eresus crassitibialis*. f-g. male (La Gomera, Canary Islands). h. female (La Gomera, Canary Islands).
Photos: (a, h) Martin Forman, (b-d) Stanislav Macík, (e) Ondřej Košulič, (f, g) Pavel Krásenský.

Another *Eresus* from North Africa is *Eresus pharaonis* Walckenaer, 1837 described from Egypt (the exact type locality is not specified). The identity of this species seems unambiguous, as the type specimen is preserved. It is, together with *Eresus walckenaeri* Brullé, 1832, the species with the largest females of the genus *Eresus*. *Eresus pharaonis* has a distinctly arched cephalic part of cephalothorax, the forehead and anterior side of the chelicerae being covered with red hairs. It also differs from our

species in the shape of the copulatory organ, the anterior margin of the epigyne being distinctly notched, the fissures being convergent, and the copulatory ducts distinctly slender (see Fig. 1 in El-Hennawy 2004).

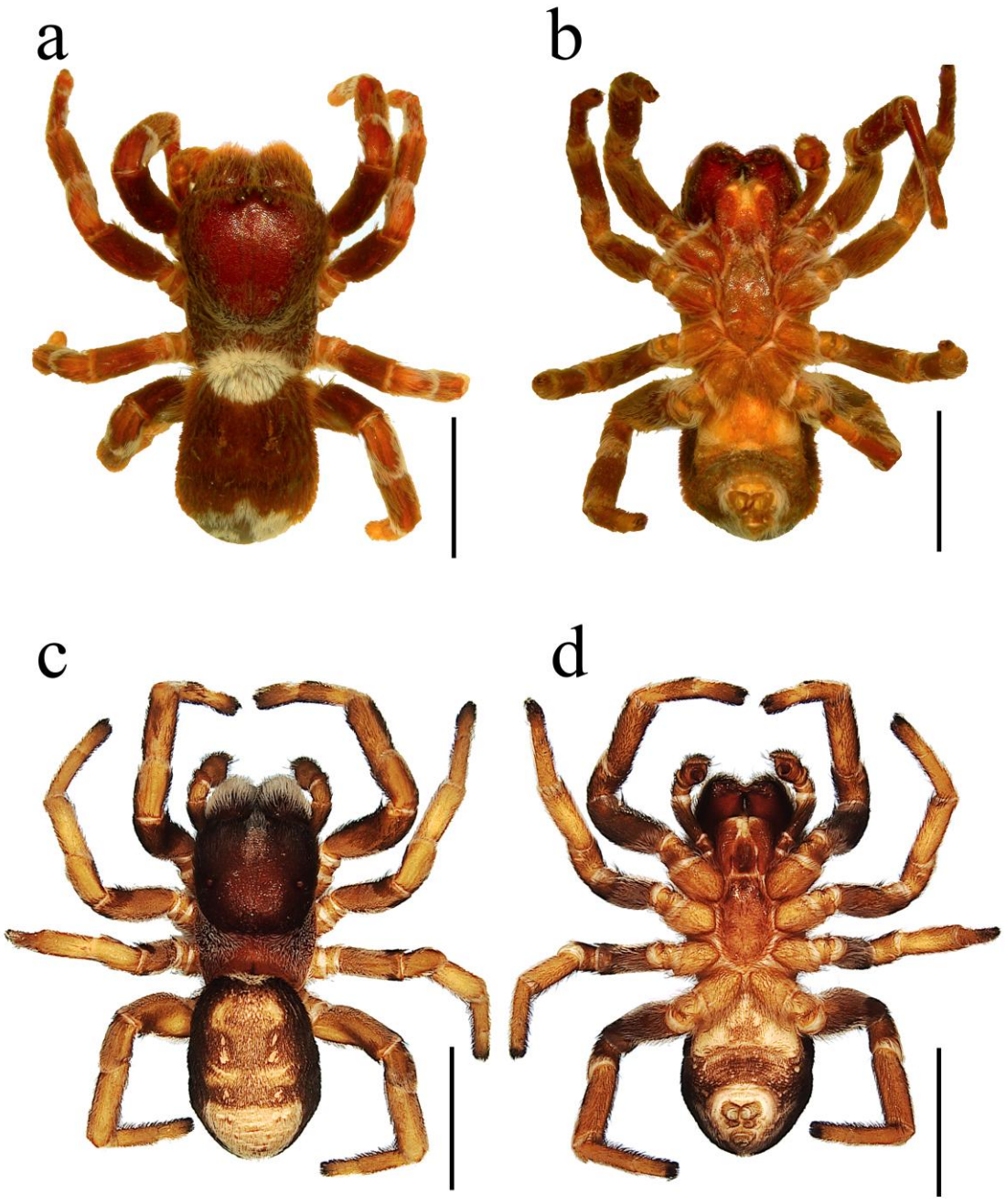

Fig. 2. a-d. Comparison of *Eresus elhennawyi* sp. n. and *E. crassitibialis* Wunderlich, 1987 male habitus from dorsal and ventral views. a-b. *Eresus elhennawyi*. c-d. *Eresus crassitibialis*. a, c. dorsal view. b, d. ventral view. (Scale bars: 3 mm).

Another African taxon is *Eresus guerinii* Lucas, 1846 described from the locality of Ténès in Algeria. It is listed as a synonym of *Eresus kollari* in the World Spider Catalog (2023), which is unjustified and certainly incorrect. According to the original description, it is a 31 mm long black female with a head and chelicerae with rusty hairs. The type specimen of this species was found in the Paris museum, although originally

mixed with other eresid specimens of Lucas. The vial designated as *E. guerinii* contained, according to Simon, *E. niger* (probably the type of *E. guerinii* itself), *E. semicanus* (probably the type of *Loureedia annulipes* (Lucas, 1857)), and *E. albopictus* (probably *Loureedia lucasi* (Simon, 1873)) (Simon 1911). It is a large female with rusty hairs on the forehead and anterior chelicerae. It also differs from our species in the shape of the copulatory organ, the anterior margin of the epigyne is notched, the fissures are more widely spaced, and the copulatory ducts are the same colour as the spermathecae.

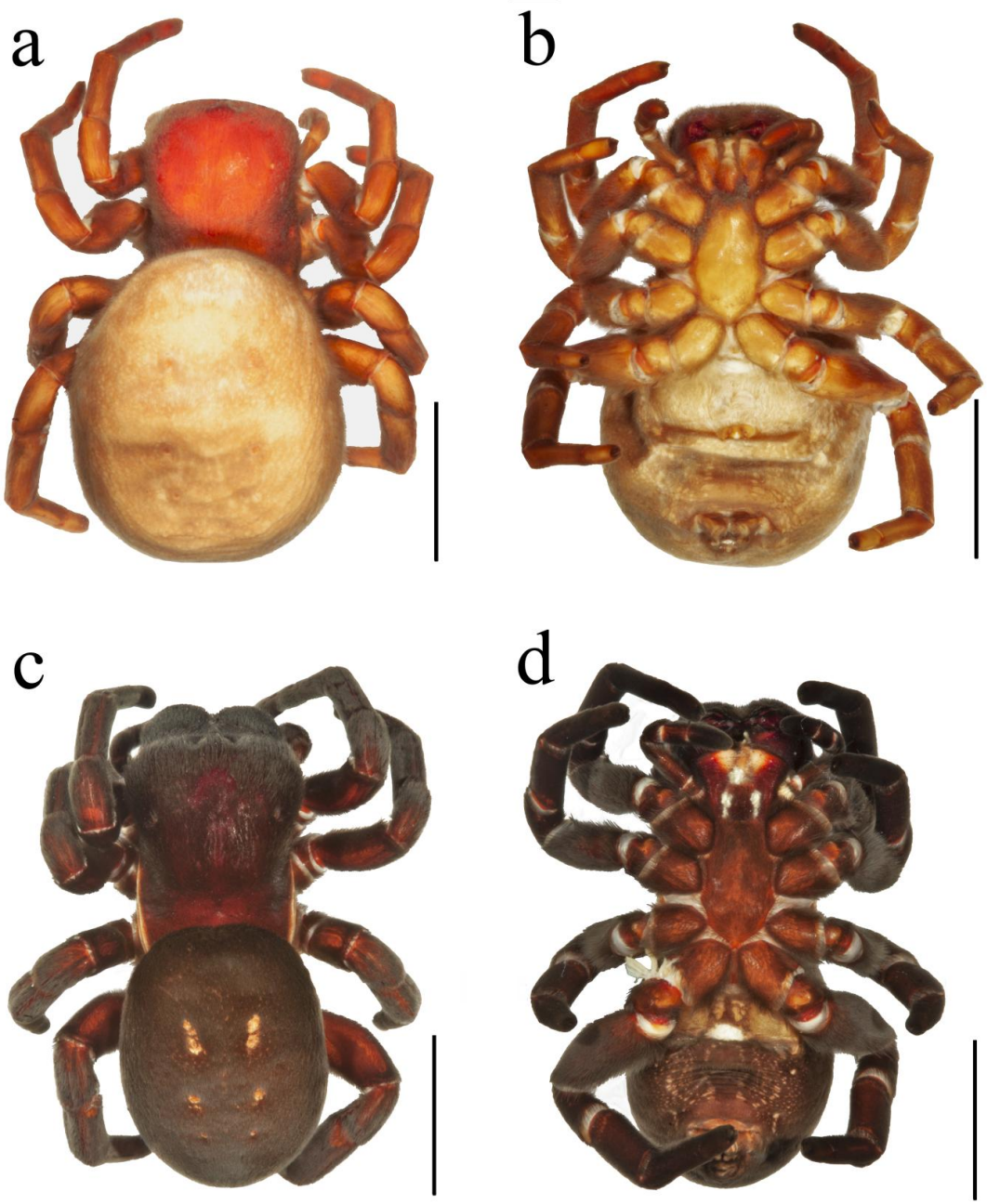

Fig. 3. a-d. Comparison of *Eresus elhennawyi* sp. n. and *E. crassitibialis* Wunderlich, 1987 female habitus from dorsal and ventral views. a-b. *Eresus elhennawyi*. c-d. *Eresus crassitibialis*. a, c. dorsal view. b, d. ventral view. (Scale bars: 10 mm).

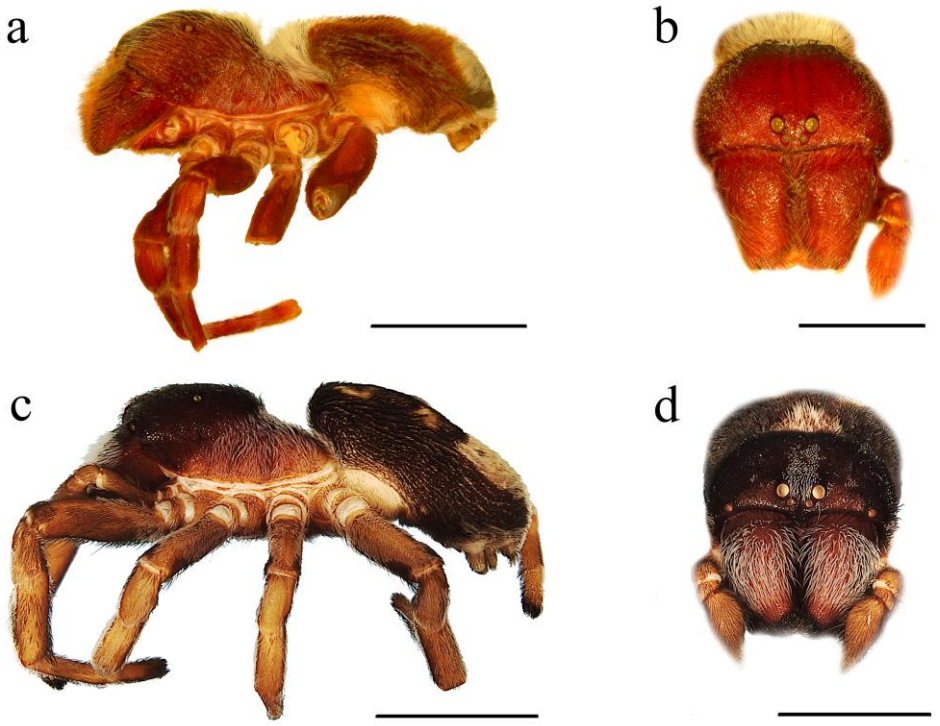

Fig. 4. a-d. Comparison of *Eresus elhennawyi* sp. n. and *E. crassitibialis* Wunderlich, 1987 male habitus from lateral and frontal views. a-b. *Eresus elhennawyi*. c-d. *Eresus crassitibialis*. a, c. lateral view. b, d. frontal view. (Scale bars: (a, c) 3 mm, (b, d) 2 mm).

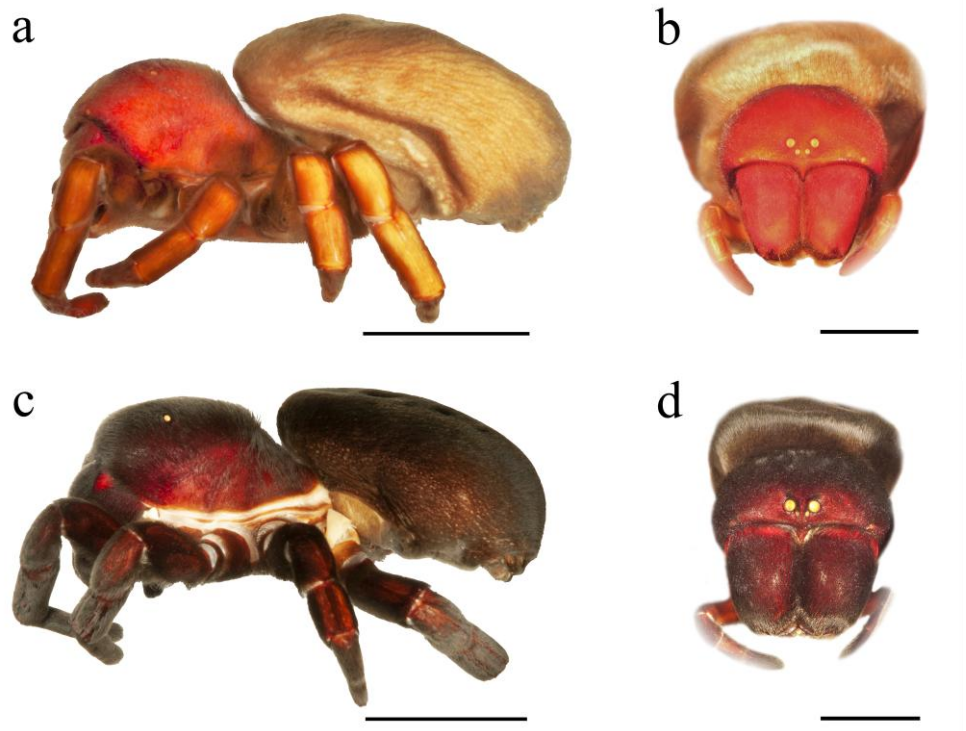

Fig. 5. (a-d) Comparison of *Eresus elhennawyi* sp. n. and *E. crassitibialis* Wunderlich, 1987 male habitus from lateral and frontal view. (a, b) *Eresus elhennawyi,* (a) lateral view, (b) frontal view, (c, d) *Eresus crassitibialis,* (c) lateral view, (d) frontal view. (Scale bars: (a, c) 3 mm, (b, d) 2 mm).

Another dubious African taxon is *Eresus albomarginatus* Lucas, 1864 described from Senegal. The description is extremely brief. We did find an individual with the label *E. albomarginatus* in the Paris museum, but it does not match the original description in sex, size or colouration. Lucas described an 11 mm long male, there was a 25 mm long female in the vial labelled *Eresus albopictus*. The description of the colouration (white margin of cephalothorax and reddish legs of the three hind pairs) leads to doubt whether this is a representative of the genus *Eresus* at all. This taxon was considered *nomen nudum* by El-Hennawy (2004), it is classified as *nomen dubium* in the World Spider Catalog (2023).

Another taxon often associated with North African fauna is *Eresus albopictus* Simon, 1873 described from Palermo, Sicily. We found the type specimen in the Paris Museum. It is a subadult female. The combination of the following characters documents that this is *Eresus walckenaeri*: pre-epigyne is immersed in the epigastric furrow (like epigyne of adult females), white spots on the abdomen (characteristic feature of *E. walckenaeri* juveniles, adults loose it), relatively long legs, and flat cephalic tubercle. Later, Simon began to doubt whether the type of *E. albopictus* really originated from Sicily and not from North Africa (Simon, 1911). And he started to use the name *E. albopictus* for female eresids from North Africa with white dots on the abdomen, in particular, for the females of *Loureedia lucasi* (Simon, 1873) (Simon, 1909; Henriques *et al.*, 2018). The material of *Loureedia lucasi* labelled as *E. albopictus* was probably being evaluated by Lehtinen when, without explanation, he suggested a transfer to the genus *Dorceus* (Lehtinen, 1967), correctly understanding that the then undescribed genus *Loureedia* did not fit into the genus *Eresus*. A further misunderstanding occurred when El-Hennawy (2002) redescribed a female from the Paris Museum erroneously labelled as *E. albopictus*. In this case, it was neither *Eresus walckenaeri* nor *Loureedia lucasi*, but a female of a species of the genus *Eresus* with the same white spots on the abdomen, which we describe in this paper as *Eresus elhennawyi* sp. n.

The last African *Eresus* is *Eresus niger latefasciatus* Simon, 1911 from the Algerian localities of Aumale, Mahadid, Ouransenis, and Talmet near Batna. A rich collection of type material of this taxon is preserved in the Paris Museum. This species is morphologically very similar to European species such as *Eresus cinnaberinus* (Olivier, 1789), *Eresus moravicus* Řezáč, 2008 or *Eresus ignicomis* Simon, 1914. Females of this taxon are not known. Based on morphological similarities with the mentioned European species and sympatric occurrence, we believe that *Eresus latefasciatus* could represent males belonging to *Eresus guerinii*.

Material

Holotype. ♂, Morocco: Taroudant, 30.4834, -8.8732, leg. Dordognin, Institut Scientifique Chérifien, coll. National Museum Prague.
Paratypes. 1♀, Morocco: Taroudant, 30.4834, -8.8732, leg. Dordognin, Institut Scientifique Chérifien, coll. National Museum Prague. 2♀♀, Morocco: Agadir, 30.4397, -9.6032, April 1939, leg. L. Berland, coll. Muséum national d'Histoire naturelle in Paris: AR5387.
Other material examined. 1♀, Algeria: Laghouat, 33.8218, 2.8879, 1932, leg. Dr Arnaud, coll. Muséum national d'Histoire naturelle in Paris: AR14377.
Comparative material examined. Eresus crassitibialis Wunderlich, 1987: Spain: Canary Islands: La Gomera, Pavón, 28.1072, -17.2702, 1♀, Dec 2008, leg. R. Sejkora; 1♀, leg. M. Řezáč; 1♂, leg. F. Šťáhlavský, coll. Crop Research Institute in Prague.

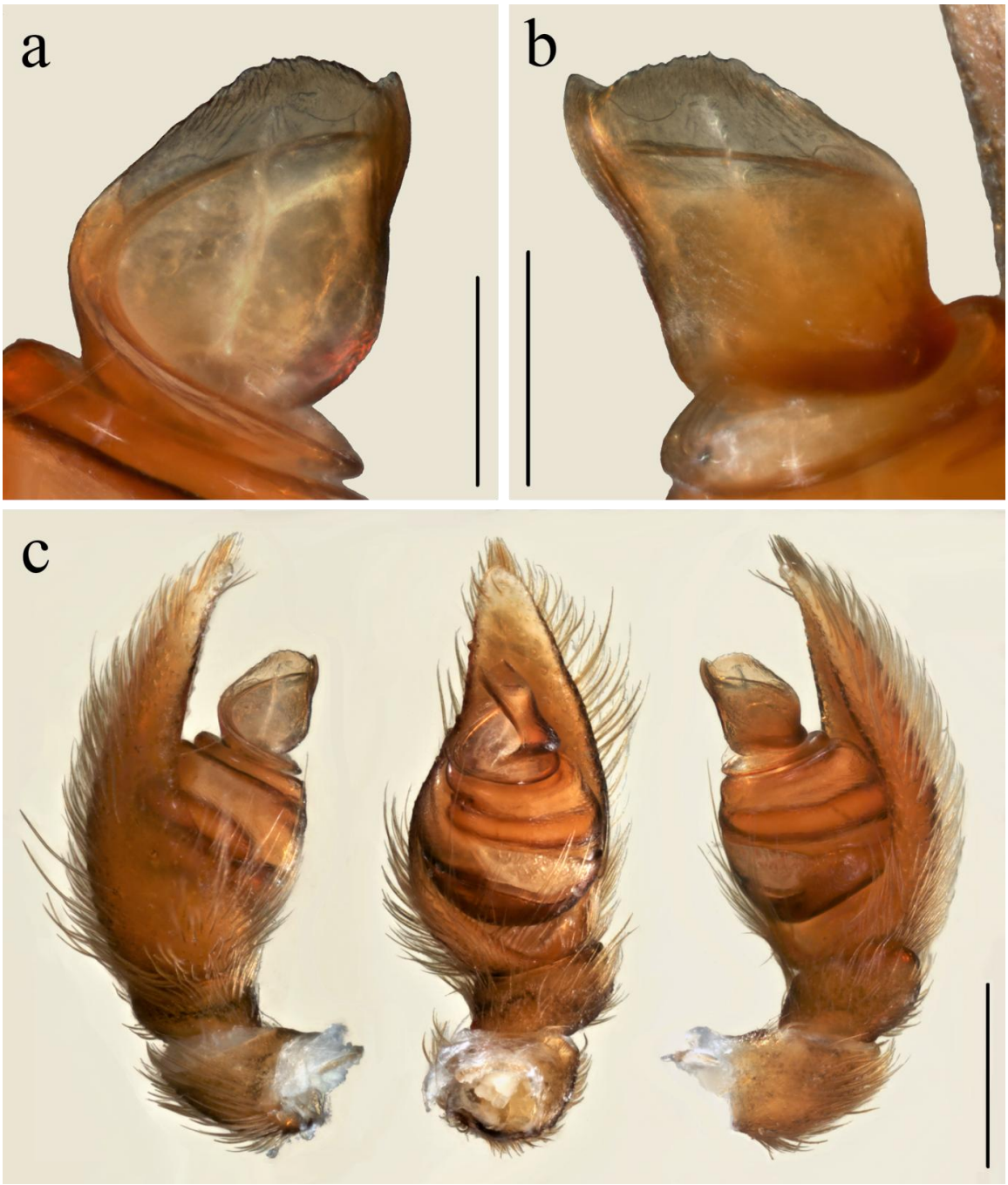

Fig. 6. a-c. Details of *Eresus elhennawyi* sp. n. holotype male pedipalp. a. prolateral view of conductor. b. retrolateral view of conductor. c. prolateral, ventral and retrolateral views (from left) of bulbus. (Scale bars: (a-b) 200 µm, (c) 750 µm).

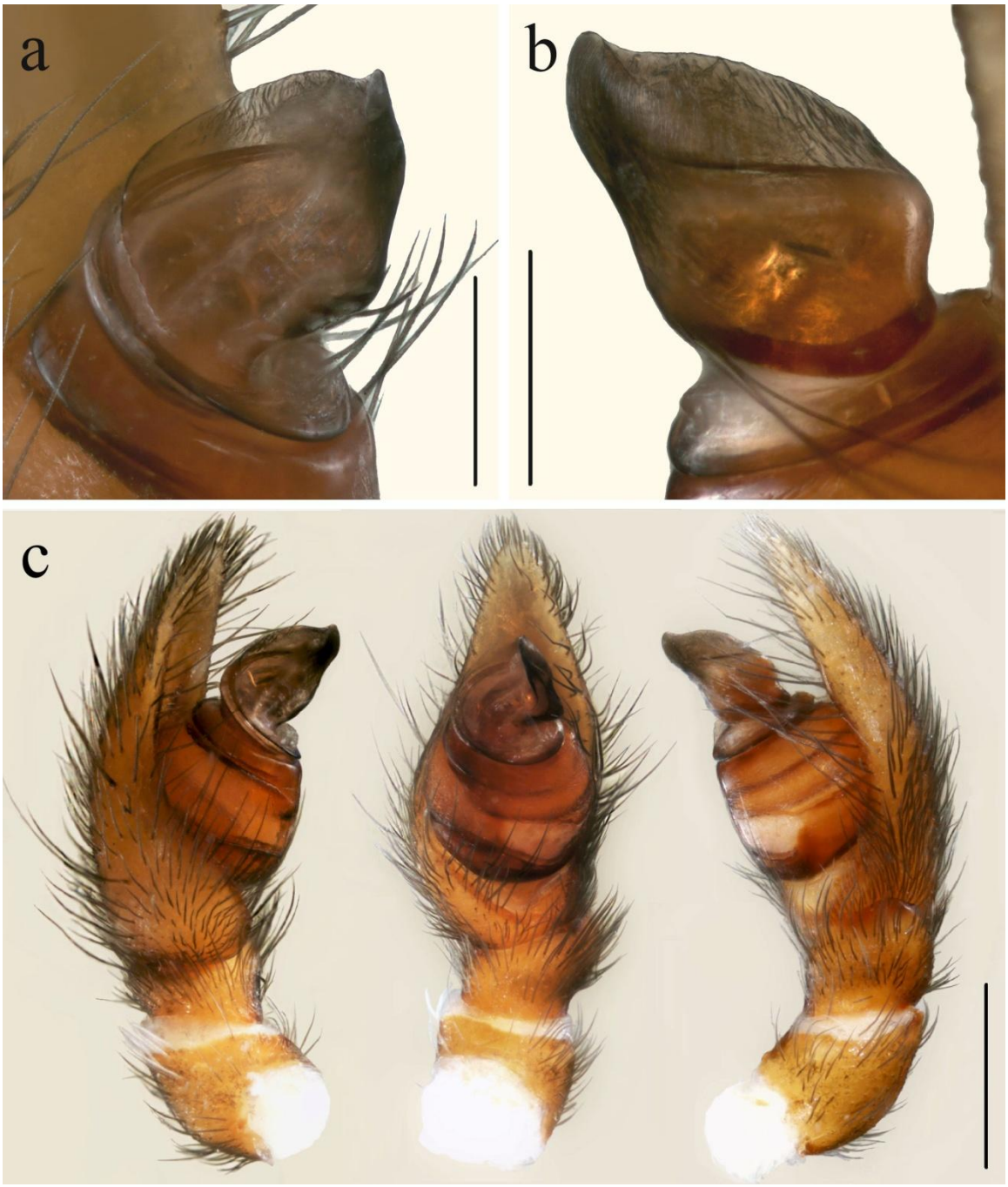

Fig. 7. a-c. Details of *Eresus crassitibialis* Wunderlich, 1987 male pedipalp. a. prolateral view of conductor. b. retrolateral view of conductor. c. prolateral, ventral and retrolateral views (from left) of bulbus. (Scale bars: (a-b) 200 µm, (c) 750 µm).

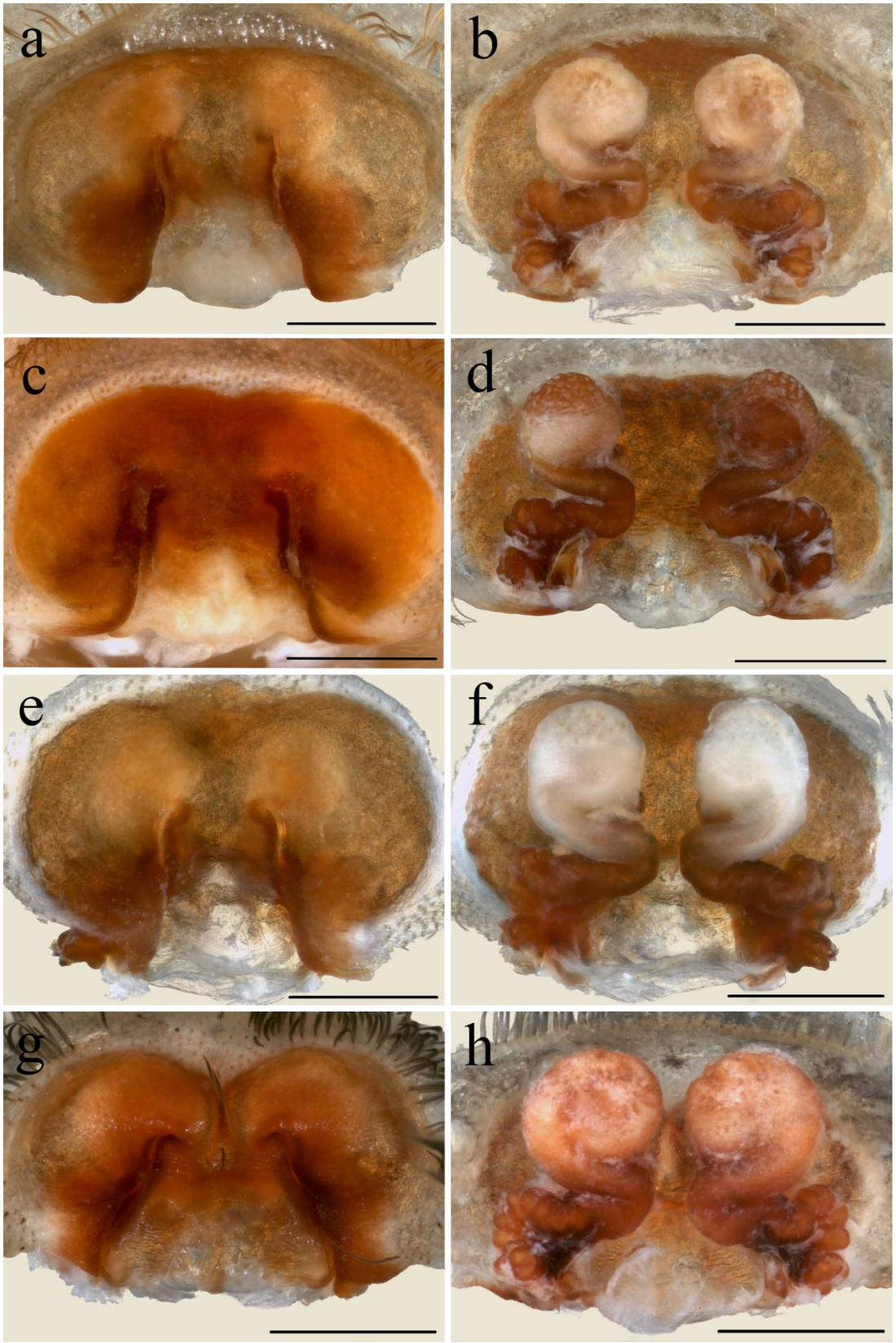

Fig. 8. a-h. Comparison of female genital structures of *Eresus elhennawyi* sp. n. and *E. crassitibialis* Wunderlich, 1987. a-f. *Eresus elhennawyi*. a-b. paratype - epigyne and vulvae (Taroudent, Morocco). c-f. epigynes (on left) and vulvae (on right) of Agadir specimens (Agadir, Morocco). g-h. *Eresus crassitibialis* (La Gomera, Canary Islands). g. epigyne. h. vulvae. (Scale bars: 300 µm).

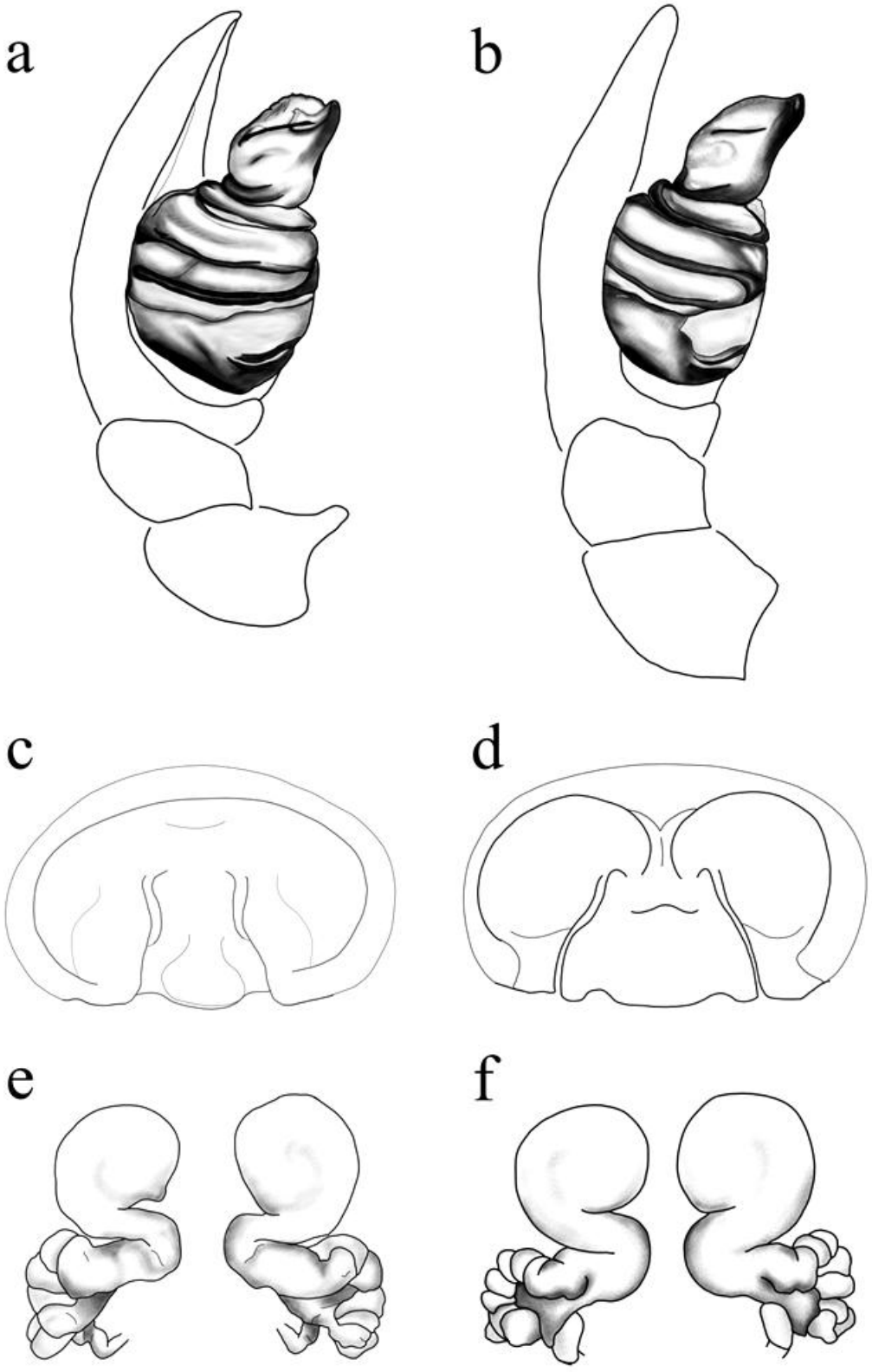

Fig. 9. a-f. Comparison of genitalia drawings of *Eresus elhennawyi* sp. n. and *E. crassitibialis* Wunderlich, 1987. a, c, e. *Eresus elhennawyi*. b, d, f. *Eresus crassitibialis*. a-b. pedipalp drawings. c-d. epigyne drawings. e-f. vulvae drawings.

Eresus guerinii Lucas, 1846: 1♀, Algeria: Ténès, Langhouat?, coll. Muséum national d'Histoire naturelle in Paris: AR5386.
Eresus pharaonis Walckenaer, 1837: 1♀ 1 juv., Egypt, coll. Muséum national d'Histoire naturelle in Paris: AR839.
Eresus niger latefasciatus Simon, 1911: 6♂♂, Algeria: Aumale, Mahadid, Ouransenis, coll. Muséum national d'Histoire naturelle in Paris: AR849
Eresus albopictus Simon, 1873: holotype, subadult ♀, Italy: Sicily, Palermo, leg. Waga, coll. Muséum national d'Histoire naturelle in Paris: AR14356, original Simon's code 716.

Etymology
Named after the Egyptian arachnologist Hisham El-Hennawy, our colleague and friend who has worked on the arachnids of North Africa for several decades.

Diagnosis
This species differs from other species of the genus *Eresus* by the shape of the copulatory organs and the colouration of the males. These features make it most similar to *Eresus crassitibialis* Wunderlich, 1987 (Figs. 1f-h, 2c-d, 3c-d, 4c-d, 5c-d, 7, 8g-h, 9b,d,f) from the Canary Island of La Gomera, near Morocco, where *E. elhennawyi* sp. n. is found. Both these species have a relatively low cephalic part of cephalothorax (Figs. 4a,c, 5a,c), the males having the dorsal side of the abdomen black, with a large light patch anteriorly and posteriorly (Figs. 1a-d,f-g, 2). The conductor is high, with a faint groove (Figs. 6, 7, 9a-b), and the copulatory ducts of the vulvae are considerably less sclerotized than the spermathecae (Figs. 8b,d,f,h).
However, there are also several differences between these two similar species. The males of *E. crassitibialis* differ from the males of *E. elhennawyi* sp. n. in having a black cephalic part of cephalothorax with a longitudinal band of grey hairs (Figs. 1f,g, 2c, in *E. elhennawyi* sp. n. it is rusty, 1a-b, 2a), chelicerae covered with grey (Figs. 1f-g, 2c, 4d, not black like in *E. elhennawyi* sp. n., 1c, 2a) hairs, especially hind legs entirely covered with grey hairs (Figs. 1f, 2c), and the dorsal side of the abdomen with ochre (Figs. 1f, 2c, not grey like in *E. elhennawyi* sp. n., 1a-d, 2a) patches. As for the male copulatory organ, the tooth on the conductor of *E. crassitibialis* is more prominent, rounded, and not separated from the rest of the lamella by a groove (Figs. 7, 9b). Females of *E. crassitibialis* differ from females of *E. elhennawyi* sp. n. by the absence of white spots (Figs. 1h, 3c). As regards the female copulatory organs, the fissures of the epigyne of *E. crassitibialis* are markedly convergent anteriorly, the fossa of the epigyne being divided by a distinct notch in the anterior part (Figs. 8g, 9d). The copulatory ducts of *E. crassitibialis* are relatively larger (Figs. 8h, 9f) than those of *E. elhennawyi* sp. n. (Figs. 8b,d,f, 9e).

Description
Male (holotype). Body length: 8.1 mm. *Prosoma* (Figs. 2a, 4a-b): 4.0 mm long, cephalic part 3.1 mm wide, 2.1 mm high. The cephalic part is ferruginous (Figs. 1a-b, 2a), is slightly prominent (Fig. 4a), slightly wider than the thoracic part (Fig. 2a). The area between PME and PLE is almost flat (Fig. 4a). The thoracic part is covered with grey hairs (Figs. 1a-b, 2a). *Sternum* (Fig. 2b): 2.2 mm long. *Chelicerae*: black (Figs. 1c, 2a). *Legs*: black with broad grey rings on patellae and joints between tibiae and metatarsi (Figs. 1a-d). Tibia of the first pair 1.3 mm long, of the fourth pair 1.2 mm long. *Opisthosoma*: dorsally black with big grey spot in front and back (Figs. 1a-d, 2a). The ventral side of the opisthosoma is black and only the branchial opercula and a ring around spinnerets have grey hairs (Fig. 2b). *Palp*: Conductor longer than wide in the lateral view;

terminal tooth small, triangular, slightly higher than lamella. The groove is shallow and triangular (Figs. 6, 9a).

a

b

Fig. 10. Habitats of *Eresus elhennawyi* sp. n. in Morocco. a. Ouassif, photo Přemysl Fabiánek. B. photo Ondřej Košulič.

Female (paratype from type locality). Body length: 19.7 mm. *Prosoma* (Figs. 3a, 5a-b): 10 mm long, cephalic part 6.9 mm wide, 4.2 mm high. Black with scattered white hairs (Figs. 1d-e). *Sternum* (Fig. 3b): 4.9 mm long. *Chelicerae*: black (Figs. 1d-e). *Legs*: Black (Figs. 1d-e). Relatively long: tibia of the first pair 3.4 mm long, of the fourth pair 3.3 mm long. *Opisthosoma*: violet-black with spots of white hairs (Figs. 1d-e). *Epigyne* (Figs.

8a,c,e, 9c): anterior part without notch and longitudinal bar, fissures almost parallel, extend only to two-thirds of the height of the epigyne. *Vulvae* (Figs. 8b,d,f, 9e): lobes of spermathecae reaching further to the sides than the copulatory ducts. Copulatory ducts constitute elliptical organs, less sclerotised than the spermathecae, in the anterior part of the vulva.

Size variation. Prosoma length of females 10–14 mm.

Ecology

This species lives under rocks in semi-desert habitats (Fig. 10), so unlike most species of the genus *Eresus*, it does not burrow. Adult males seek out females in April. Their colouration is obviously a mimicry of stinging mutilid wasps.

Distribution

It occurs only in north-western Africa, so far it is known from Morocco (Taroudant, Agadir; Guelmin – El-Hennawy, 2016; Mirleft – photo Ondřej Košulič; Ouassif – photo Přemysl Fabiánek) and Algeria (Laghouat).

Discussion

The newly described species is probably closely related to *E. crassitibialis*, an endemic of the island of La Gomera in the Canary Archipelago. These species are similar morphologically, having a relatively low cephalothorax, a high conductor with little or no groove, and males having a similar colour pattern. In addition, they are also similar in their biology; unlike other species in the genus *Eresus*, both species live under rocks and do not burrow. The greater relative leg length of females of these species is apparently related to life outside the burrows. In this, they are similar to another peculiar species of the genus *Eresus*, *Eresus walckenaeri* Brullé, 1832. This species also resembles these Northwest African species in its conductor without groove.

Thus, the species *E. crassitibialis* and *E. elhennawyi* sp. n. probably had a common ancestor in NW Africa that colonized La Gomera. Spiders of the genus *Eresus* have poor dispersal ability (Johannesen *et al.*, 1998), and colonization of La Gomera was probably achieved by rafting on tree trunks rather than ballooning through the air. The poor dispersal ability of these spiders is evidenced by the fact that only one of the Canary Islands was colonised by *Eresus*, with no dispersal within the archipelago.

The colouration of adult males is obviously a mimicry of dangerous mutilid wasps. After maturity, they emerge from their burrows and search the ground surface for females during the day. This exposes them to predation pressure from sight-oriented predators, especially birds. Mutilid wasps are known for their very painful stings. Predators therefore avoid them. This exclusion from the diet is exploited by many harmless arthropods that have learned to visually mimic these wasps.

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